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ABSTRACT

The Thomas B. Fordham Foundation has commissioned studies of state academic standards in five core subjects. This is the third of these studies, concentrating on geography, the core subject that has been the most neglected in the U.S. academic curriculum. Standards documents were solicited from all the states, and were submitted by 38 states and the District of Columbia. The evaluation first judged a state's standards against six general characteristics: clarity, specificity, balance of point of view, use of active verbs against which progress can be gauged, inclusion of benchmarks, and guidance to teachers. Evaluators then focused on the comprehensiveness and rigor with which a state's geography standards address key content knowledge and concepts central to a full understanding of geography. Of the 39 jurisdictions, only 3 received a grade of "A." These were headed by Colorado, with a perfect score, a state in which the standards present geography as an important and interesting field of study. Indiana and Texas also received an "A." Three states received a "B" (Michigan, New Hampshire, and West Virginia) and eight states and the District of Columbia received a "C." Six states were graded as "D," and the others failed the standards evaluation. The good news for educators is that geography has regained a place in the U.S. curriculum and is being taken seriously by a number of states. The bad news is that most current state standards for what students know and should be able to do are weak. State-by-state reports are given, including comments on the 12 states that received "incompletes" because of their lack of standards. Three appendixes contain a discussion of the methodology, the criteria and scoring instrument, and a 14-item bibliography. (Contains 1 map, 1 figure, and 5 tables.) (SLD)

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State Geography Standards

An Appraisal of Geography Standards in 38 States and the District of Columbia

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By Susan Munro

February 1998

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State Geography Standards

An Appraisal of Geography Standards in 38 States and the District of Columbia

by
Susan Munroe and Terry Smith
The Casados Group

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FOREWORD

The Thomas B. Fordham Foundation is honored to present the first-ever appraisal of state geography standards, prepared by Susan Munroe and Terry Smith of the Casados Group, in consultation with a team of distinguished geographers.

This is the third such publication by the Foundation, which has commissioned studies of state academic standards in all five of the core subjects designated by the governors and President Bush at their 1989 education "summit" in Charlottesville. In July 1997, we issued Sandra Stotsky's evaluation of state English standards. Concurrently with the Casados report on geography, we are publishing an evaluation of state history standards. These will shortly be followed by examinations of state standards in math and science.

Those are the subjects originally named in the third of the national education goals, which stated that, "By the year 2000, American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter." Although Congress later added other fields, and several nervous professional groups have also done their best to elbow their way onto the list, these five remain, in our view, the heart of the academic curriculum of U.S. schools.

Among them, geography is a unique case: the core subject that most U.S. schools have most egregiously neglected, the field that has had to start practically from scratch to win its proper place in the academic curriculum.

It's little wonder that American youngsters (and adults) have fared badly in recent years on tests of geographic knowledge and skills. Few of them attended schools (or colleges) that paid more than cursory attention to those skills and knowledge. Sure, there are plenty of 6th grade social studies courses that carry a "geography" label, but a decade ago it was extremely unusual to find a school, school system, or state that made proficiency in (or even serious exposure to) geography a requirement.

That's not true in many other lands, where geography has long occupied an honored place at the curricular table. But not here.

This sorry situation began to change in the late 1980s. The story is well told in the following pages. As I read it, three factors stood out as paramount. First, more and more Americans were appalled by mounting evidence that their children (and neighbors) were woefully ignorant of even the simplest geography facts, such as whether Mexico is north or south of the United States or how to find Italy on a blank map of the world. Nor was this ignorance just a matter of academic interest; the globalization of the world economy and the internationalization of so many aspects of our lives meant that employers, publishers, investors, scientists, and others found themselves demanding greater geographic sophistication.

Second, the National Geographic Society (on whose professional staff the authors of this report have both served) got serious about geography education, bringing its immense prestige and considerable resources to bear on this mission.

And third, no doubt influenced by the first two, in Charlottesville in 1989 President Bush and the 50 governors chose to give geography equal standing with the far better established fields of English, math, science, and history.

But what, exactly, does it mean for students to "demonstrate competency in challenging subject matter" in geography? Standards and guidelines were plainly needed. An ambitious effort was accordingly launched to develop national standards under the auspices of the leading professional organizations. (Co-author Susan Munroe played a key role in this project.) And—in marked contrast to what happened in history, English, and several other subjects—this endeavor turned out reasonably well. *Geography for Life* is a solid (if over-long, over-ambitious, and awkwardly structured) guide to what the leaders of the field believe young people should learn about it.

Still, the heavy lifting in geography standards, as in other subjects, is the duty of the states. They are in basic charge of K-12 education. They set its standards, certify its teachers, prescribe its graduation requirements—and pay most of its bills. So it's to the states that we must look for evidence of serious progress in geography education. And it's the standards set by the states (if any) that will have the greatest impact on what teachers teach and pupils learn.

So we asked the Casados Group to undertake an appraisal of state geography standards. We turned to them because Susan Munroe and Terry Smith are among the best-qualified people in America to conduct such an evaluation. They know the field of geography education intimately. They know all the key players. They care passionately about the subject. They think clearly and write well. And they are objective analysts, not burdened by too close an association with any state or organization.

Their enthusiasm for geography education gleams through the pages of this report. But so does their disappointment with what passes for geography standards in most of the 39 jurisdictions from which they were able to obtain documents for review. In consultation with their advisors, they carefully developed criteria by which to conduct this appraisal: six "general" criteria and eight

pertaining to the comprehensiveness and rigor of the standards' content. When they applied those criteria to the standards documents, however, the results were dismaying. Just six states earn "honors" grades—and three times that number fail.

It's clear from this analysis that geography has a long way to go to fulfill the promise made in Charlottesville. It may have earned legitimacy within the curriculum as far as policy makers are concerned, but the knowledge and skills that it presently expects of young Americans are meager indeed. If states are truly serious about this subject, nearly all of them need to re-write their standards (and, of course, to make hundreds of other changes so that such standards can turn into classroom reality).

In so doing, states face a complicated challenge. When the President and governors designated geography and history as subjects in their own right within the nation's education goals, it's clear that they meant to extricate them from the curricular swamp known as "social studies" with its "thematic approaches," fixation on "relevance," "expanding environments," and general muddle-headedness.

But social studies is deeply rooted and doesn't want to be displaced. In trying to pay attention to geography (and history), therefore, many states have wound up back in the swamp. And, particularly as civics and economics have also pressed for equal standing, there has been a temptation to say, "Okay, we'll deal with all these subjects within our 'social studies' framework."

That's not a happy resolution. But we must also understand that it's difficult—absurd, really—to take the 40 minutes (or so) per day of classroom time that has traditionally been allotted to social studies and expect to do justice to both geography and history, much less to other social science disciplines. The temptation to jumble them together in a single course, thereby "reinventing" social studies, is understandable, albeit one that we fervently hope states will resist.

A few jurisdictions—California comes to mind—have tackled this problem by revising their curriculum so that what once was a hodgepodge now centers on history, with geography (and other social science disciplines) playing supporting roles. This approach can make for rich history but, as our authors make clear, doesn't do justice to the distinctive "spatial perspective" of geography.

Munroe and Smith and their advisors believe strongly that geography should be taught in its own right—and that a state's standards for the teaching and learning of geography should be faithful to the singular intellectual contours of this singular discipline.

We're grateful indeed to the Casados team for the extraordinary pains they have taken with this difficult project. We also thank the six distinguished geographers who advised Munroe and Smith throughout this project, both with the development of criteria for appraising the state standards and in their application. Every state with standards worthy of review benefited from scrutiny by at least one of those advisors, as well as by the Casados team.

In addition to published copies, this report (and its companion appraisals of state standards in other subjects) is available in full on the Foundation's web site: http://www.edexcellence.net. Hard copies can be obtained by calling 1-888-TBF-7474 (single copies are free of charge). The report is not copyrighted and readers are welcome to reproduce it, provided they acknowledge its provenance and do not distort its meaning by selective quotation.

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The Thomas B. Fordham Foundation is a private foundation that supports research, publications, and action projects in elementary/secondary education reform at the national level and in the vicinity of Dayton, Ohio. It has assumed primary sponsorship of the Educational Excellence Network, which Diane Ravitch and I founded in 1981. Further information can be obtained from our web site or by writing us at 1015 18th Street N.W., Suite 300, Washington, D.C. 20036. (We can also be e-mailed through our web site.) In addition to Terry Smith, Susan Munroe, and their advisors, I would like to take this opportunity to thank the Foundation's program manager, Gregg Vanourek, as well as staff members Irmela Vontillius and Michael Petrilli, for their many services in the course of this project, and Robert Champ for his editorial assistance.

Chester E. Finn, Jr. President
Thomas B. Fordham Foundation
Washington, D.C.
February 1998

EXECUTIVE SUMMARY

The good news is that geography has regained a place in the U.S. curriculum and is being taken seriously by a number of states. The bad news is that most current state standards for what students should know and be able to do in this discipline are weak.

A few states have adopted truly excellent standards for geography: clear, specific, comprehensive, and rigorous. But only six states earned "honor" grades. Most fell well short of the mark, and will need to re-work their standards if they desire to lay claim to excellence.

Thirty-eight states and the District of Columbia had geography standards that could be evaluated. Of these, three receive grades of A. Three states receive grades of B, eight states and the District of Columbia receive C's, and six are graded as D's. Eighteen states fail. Map 1 includes states' final scores and grades.

The good news is that geography has regained a place in the U.S. curriculum and is being taken seriously by a number of states. The bad news is that most current state standards for what students should know and be able to do in this discipline are weak.

What We Looked for

The evaluation looked for clear, specific, assessable state standards that establish high expectations for student mastery of essential geography knowledge and skills, as well as the ability to apply this mastery to comprehend and explain past and present events and anticipate future ones. It sought standards that would cause students who attain them to comprehend and apply geography's spatial perspective: the knowledge that physical and human phenomena are distributed across Earth's surface in patterns, coupled with the ability to employ maps and other geographic tools to seek out, observe, analyze, and explain these patterns and the relationships among and within them.

Standards that only emphasized knowledge of where things are located—admittedly a vital building block for geographic competency—were judged to have fallen short if they did not also demand that students ask *why* things are located where they are and present the knowledge and skills that would enable students to derive reasoned answers to such questions.

Methodology

The evaluation was guided primarily by the explication of geography contained in *Geography for Life: National Geography Standards*, published by the Geography Education Standards Project in 1994. It contains the most complete extant treatment of the discipline, and has been largely accepted by geographers as a guide to what students should know and be able to do in the field.

The evaluation first judged a state's standards against six general characteristics that might reasonably be expected of good standards for any discipline: clarity, specificity, balance as to point of view, use of active verbs against which progress can be gauged, inclusion of benchmarks, and guidance to teachers.

It then focused on the comprehensiveness and rigor with which a state's geography standards address key content knowledge and concepts that are central to a full understanding of this particular discipline and to students' ability to gain a spatial perspective and apply it to their lives: fundamentals (the vocabulary, concepts, and tools of spatial analysis); places and regions; physical systems; human systems; environment and society; skills in making and using maps and other tools to collect, analyze, and present geographic information and using a spatial perspective through the application of geographic learning.

How States Fare

Map 1 presents the states' final scores on the overall evaluation and groups them into six categories that correspond to letter grades: states earning grades of A (80 and above on a 90 point scale), B (70-79 points), C (60-69 points) and D (50-59 points); states whose standards are insufficiently comprehensive, rigorous or specific to receive a passing grade and are graded F (fewer than 50 points); and states that have either opted not to adopt standards or whose standards are still under development. These states are graded incomplete (I).

States Receiving A's

Three states (Colorado, Indiana, and Texas) deserve A grades. Colorado tops the list with a perfect score. Its standards present geography as an important and compellingly interesting field of study, are rigorous and comprehensive and nicely presented.

States Receiving B's

Three states (Michigan, New Hampshire, and West Virginia) receive B's. Michigan's standards do a particularly good job of unifying concepts drawn from both the *Guidelines for Geographic Education*, published by the Joint Committee on Geographic Education in 1984, and *Geography for Life* into a teacher-, student-, and parent-friendly presentation.

Three states (Colorado, Indiana, and Texas) deserve A grades. Colorado tops the list with a perfect score.

States Receiving C's

Nine jurisdictions fall into this group: Alabama, Alaska, Florida, Idaho, Louisiana, Missouri, North Carolina, Utah, and the District of Columbia. By and large, their standards are reasonably well organized and acceptably comprehensive. They do not, however, distinguish themselves in any compelling manner.

States Receiving D's

Six states are included in this group: California, Illinois, Kansas, Massachusetts, Ohio, and Virginia. Notably, three of these states (California, Massachusetts, and Virginia) present geography within the context of a history/social science model. They receive a D because, while each demands that students learn the geography of places and regions whose history they are studying, none sufficiently addresses geography as a discipline in its own right.

States Receiving F's

The standards of 18 states receive failing grades: Arkansas, Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Minnesota, Mississippi, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Tennessee, Vermont, Washington, and Wisconsin. Scores within this group range from Connecticut's 49 down to North Dakota's 15. By and large, these states' efforts are either too thin in content, too generally stated, or too muddled in presentation to be of much value.

States Receiving I (Incomplete)

Twelve states are in this group: Arizona, Hawaii, Iowa, Montana, Nebraska, Nevada, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, and Wyoming. Either they do not have standards or they are comprehensively revising existing ones.

NATIONAL REPORT CARD

State Geography Standards

State (in alphabetical order)	Score	Grade
Alabama	65.0	C
Alaska	64.0	C
Arizona	—	I
Arkansas	23.0	F
California	50.5	D
Colorado	90.0	A
Connecticut	49.0	F
Delaware	42.2	F
District of Columbia	61.5	C
Florida	65.0	C
Georgia	35.5	F
Hawaii	—	I
Idaho	62.5	C
Illinois	51.5	D
Indiana	85.0	A
Iowa	—	I
Kansas	56.0	D
Kentucky	26.0	F
Louisiana	67.5	C
Maine	30.5	F
Maryland	27.0	F
Massachusetts	50.0	D
Michigan	79.0	B
Minnesota	22.0	F
Mississippi	46.0	F
Missouri	67.0	C
Montana	—	I
Nebraska	—	I
Nevada	—	I
New Hampshire	76.0	B
New Jersey	37.0	F
New Mexico	41.0	F
New York	40.0	F
North Carolina	65.0	C
North Dakota	15.0	F
Ohio	54.0	D
Oklahoma	36.0	F
Oregon	—	I
Pennsylvania	—	I
Rhode Island	—	I
South Carolina	—	I
South Dakota	—	I
Tennessee	40.0	F
Texas	80.5	A
Utah	66.5	C
Vermont	22.0	F
Virginia	59.0	D
Washington	34.0	F
West Virginia	72.0	B
Wisconsin	31.0	F
Wyoming	—	I

State (by rank)	Score	Grade
Colorado	90.0	A
Indiana	85.0	A
Texas	80.5	A
Michigan	79.0	B
New Hampshire	76.0	B
West Virginia	72.0	B
Louisiana	67.5	C
Missouri	67.0	C
Utah	66.5	C
Alabama	65.0	C
Florida	65.0	C
North Carolina	65.0	C
Alaska	64.0	C
Idaho	62.5	C
District of Columbia	61.5	C
Virginia	59.0	D
Kansas	56.0	D
Ohio	54.0	D
Illinois	51.5	D
California	50.5	D
Massachusetts	50.0	D
Connecticut	49.0	F
Mississippi	46.0	F
Delaware	42.2	F
New Mexico	41.0	F
New York	40.0	F
Tennessee	40.0	F
New Jersey	37.0	F
Oklahoma	36.0	F
Georgia	35.5	F
Washington	34.0	F
Wisconsin	31.0	F
Maine	30.5	F
Maryland	27.0	F
Kentucky	26.0	F
Arkansas	23.0	F
Minnesota	22.0	F
Vermont	22.0	F
North Dakota	15.0	F
Arizona	—	I
Hawaii	—	I
Iowa	—	I
Montana	—	I
Nebraska	—	I
Nevada	—	I
Oregon	—	I
Pennsylvania	—	I
Rhode Island	—	I
South Carolina	—	I
South Dakota	—	I
Wyoming	—	I

Grading Scale: A= 80–90, B = 70–79, C = 60–69, D = 50–59, F = 0–50, I = Incomplete

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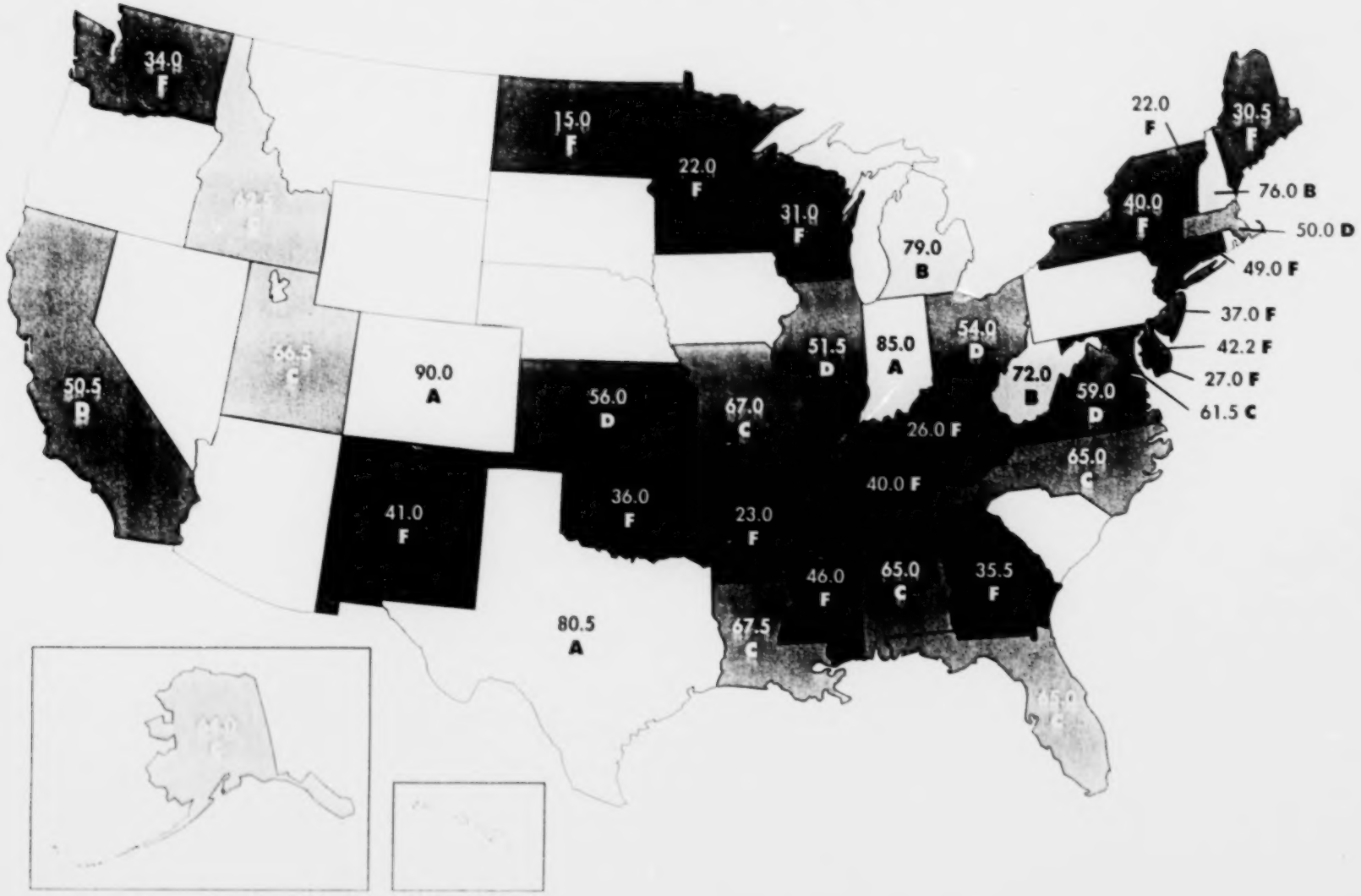
MAP 1. FINAL SCORE AND GRADE BY STATE

Maximum Possible Score = 90



INTRODUCTION

Geography had all but disappeared from U.S. schools when, in 1985, the National Geographic Society—assisted by the American Geographical Society, the Association of American Geographers, and the National Council for Geographic Education—launched a nationwide program to train teachers, distribute instructional materials, build public awareness of geography's importance, and work with education decision makers at all levels to restore the discipline to the nation's classrooms. At the time that the Society's Geography Education Program was launched, the little geography being taught in elementary and high schools was often delivered by educators who had themselves received little or no instruction in the discipline. It was mostly subsumed in the social studies curriculum where it was ill defined and had received scant attention for the previous 25 years.

In 1988, as part of its new program, National Geographic commissioned the Gallup Organization to conduct a nine-nation survey of geography knowledge. The results of this survey were widely reported. The study found that citizens of the United States ranked seventh overall in this international comparison. The most stunning finding, however, was that U.S. 18-24 year-olds ranked last among nations and that ours was the only nation whose young adults knew less geography than those over the age of 55. Clearly, geography was missing from the curriculum of most U.S. schools.

When the nation's governors and President George Bush met in 1989 at the historic Charlottesville, Virginia education summit, both the Gallup results and the Society's efforts were making an impact and geography was thrust onto the national education reform stage with its inclusion in the National Goals for Education. Goal Three listed geography along with mathematics, science, English, and history as the five essential disciplines in which students should reach world class competency by the year 2000. Thus, movement was initiated toward model national geography standards and the development and adoption of state standards for geography.

This appraisal of state geography standards was conducted against the backdrop of the discipline's renaissance in U.S. schools. The study's two primary evaluators analyzed state standards during the summer and fall of 1997, judging the general characteristics, comprehensiveness, and rigor of the geography standards in the 39 jurisdictions (38 states and the District of Columbia) found to have standards either in place or well along toward adoption by the beginning of December. Twelve other states have either made a policy decision not to adopt standards or are still in the process of developing or substantially revising them.

What We Looked For

The evaluation looked for clear, specific, and assessable state standards that establish high expectations for student mastery of essential geography knowledge and skills, as well as the ability to apply this mastery to comprehend and explain past and present events and to anticipate future ones. It sought standards that would cause students who attain them to comprehend and apply geography's spatial perspective: the knowledge that physical and human phenomena are distributed across Earth's surface in patterns, coupled with the ability to employ maps and other geographic tools to seek out, observe, analyze, and explain these patterns and the relationships among them.

The spatial perspective is geography's analog to history's chronological perspective and is a powerful analytical basis for observing and making sense of the world. It is the essential "stuff" of geography.

Standards that only emphasized knowledge of where things are located—admittedly a vital building block for geographic competency—were judged to have fallen short if they did not also demand that students ask why things are located where they are and present the knowledge and skills that would enable students to derive reasoned answers to such questions.

It is important both for our nation and for our children's future to move beyond the notion that students are geographically educated if they know the names and locations of places. As technology, trade, geo-political, and global environmental issues draw them ever more intimately into a world-wide web of relationships, our children will need more powerful tools for understanding the ties (and tensions) among people, places, and environments than did their parents and grandparents. Geography powerfully addresses these needs. The introduction to Colorado's geography standards, *Mapping Out a Standards-Based Framework for Geography*, published in 1995 by the Colorado Department of Education, summarizes the matter nicely:

> . . . Geography uses a spatial perspective to study the location, arrangement, and interaction of people, places, and environments over Earth's space. By understanding and using the spatial perspective geography offers, students can study facts, issues, and ideas in depth.

Methodology

The evaluation and organization of this study's criteria and scoring instrument were guided by the explication of geography contained in *Geography for Life: National Geography Standards* published by the Geography

Education Standards Project in 1994. It contains the most complete extant treatment of the discipline for grades K-12 and has been largely accepted by geographers as a guide to what students should know and be able to do in the discipline. Additional guidance was provided by *Guidelines for Geographic Education: Elementary and Secondary Schools*, a 1984 joint publication of the Association of American Geographers and the National Council for Geographic Education; by Colorado's excellent standards; and by a six-person advisory committee of distinguished geographers and educators.

The evaluation first judged standards against six general characteristics that might reasonably be reflected in standards for all disciplines: clarity, specificity, balance, use of strong verbs, inclusion of benchmarks, and guidance to teachers.

It then focused on the comprehensiveness and rigor with which a state's geography standards address key content knowledge and concepts that are central to a full understanding of the discipline and to students' ability to gain a spatial perspective and apply it to their lives: fundamentals (the vocabulary, concepts, and tools of spatial analysis); places and regions; physical systems; human systems; human-environmental interaction (environment and society); skills in making and using maps and other tools to collect, analyze, and present geographic information and using a spatial perspective through the application of geographic learning.

The evaluation instrument and a more detailed explanation of evaluation methodology are found in the Appendix.

GENERAL RESULTS

The results of this evaluation are mixed. It is encouraging that geography has regained a place in the U.S. elementary and secondary curriculum and in state standards. Unfortunately, most current state standards for what students should know and be able to do in this discipline are not very good.

A few states have adopted truly excellent standards for geography: standards that are clear, specific, comprehensive, and rigorous. Most, however, have fallen well short of the mark and will need to revisit their standards if they desire to lay claim to excellence.

Map 1 presents the states' final scores on the overall evaluation and groups them into six categories that correspond to letter grades: states earning grades of A (80 and above on a 90 point scale), B (70-79 points), C (60-69 points) and D (50-59 points); states whose standards are insufficiently comprehensive, rigorous, or specific to receive a passing grade and are graded an F (fewer than 50 points); and states that have either determined not to adopt standards or whose standards are still under development. These states are graded incomplete (I).

The results of this evaluation are mixed. It is encouraging that geography has regained a place in the U.S. elementary and secondary curriculum and in state standards. Unfortunately, most current state standards for what students should know and be able to do in this discipline are not very good.

Thirty-eight states and the District of Columbia were found to have standards in place or far enough along in development to be evaluated. Of these, only three receive grades of A. Three states receive grades of B, eight states and the District of Columbia receive C's, and six are graded as D's. Eighteen receive failing grades. Table 1 summarizes scores in all areas evaluated.

States Receiving A's

Three states (Colorado, Indiana, and Texas) deserve A grades. Colorado tops the list with a perfect score. Its standards present geography as an important and compellingly interesting field of study. They enable curriculum developers, teachers, parents, and students to comprehend the richness of the discipline, determine its appropriate place in the curriculum, adopt clear and specific expectations for student achievement, and develop assessment tools to measure progress. The standards include developmental profiles that identify what students are capable of doing in geography in one- and two- grade clusters, samples of exemplary geography lessons, instructional and assessment guides, and a solid set of instructional resources. Colorado's standards are a model for any discipline in any state and, notably, are the only state standards that treat geography as a separate and distinct discipline.

Indiana and Texas standards present the discipline as a strand within a traditional social studies model. But both states do an excellent job of presenting comprehensive and rigorous standards that are clear and specific. In contrast to many states that score less well, the standards of both these states present a rigorous continuum of geography learning expectations at every grade level. Standards for Texas's high school course in World Geography (required of virtually all high school students) are judged by a member of the project's advisory committee to be rigorous enough for a college-level course.

States Receiving B's

Three states (Michigan, New Hampshire, and West Virginia) receive B's. Michigan's standards do a particularly good job of unifying concepts drawn from both the *Guidelines for Geographic Education* and *Geography for Life* into a teacher-, student-, and parent-friendly presentation.

New Hampshire's standards are thorough and complete and would have received an A but for the fact that the Granite State presents them at just two grade levels: at the end of grades six and ten. The evaluation marks down standards grouped into such broad grade clusters as this approach reduces the ability of local curriculum developers, teachers, and parents to know what students should master and when.

West Virginia's standards are also comprehensive and rigorous. They are noteworthy for their expectation that students master and apply computer skills for geography and other social studies disciplines beginning in the earliest grades.

States Receiving C's

Nine jurisdictions fall into this group. Alabama, Alaska, Florida, Idaho, Louisiana, Missouri, North Carolina, Utah, and the District of Columbia. By and large, their standards are decently organized and acceptably comprehensive. They do not, however, distinguish themselves in any

compelling manner. And each has its own problems. Alaska's standards, for example, are rigorous only in early grades. The District of Columbia fails to demand that students apply what they have learned in geography to gain a spatial perspective.

Utah's K-6 standards are being revised. If these are as comprehensive and rigorous as the state's new 7-12 standards, Utah's final standards will be first rate.

States Receiving D's

Six states are included in this group: California, Illinois, Kansas, Massachusetts, Ohio, and Virginia. Notably, three states (California, Massachusetts, and Virginia) present geography within the context of a history/social science model. They receive a D because, while each demands that students learn the geography of places and regions whose history they are studying, none sufficiently addresses geography as a discipline in its own right.

Illinois, Kansas, and Ohio score poorly because their standards are not comprehensive and are confusingly presented.

States Receiving F's

The standards of 18 states receive failing grades: Arkansas, Connecticut, Delaware, Georgia, Kentucky, Maine, Maryland, Minnesota, Mississippi, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Tennessee, Vermont, Washington, and Wisconsin. Scores within this group range from Connecticut's 49 to North Dakota 's 15. By and large, these states' efforts are either too thin in content, too generally stated, or too muddled in presentation to be of much value.

Within this group, New York's standards presented a quandary for evaluators. That state's learning and performance standards are stated in very general terms that offer little specific guidance. On this basis, they do not fare well. On the other hand, New York's standards, as with many states, include sample tasks meant to illuminate their intent. These tasks reflect a comprehensive and rigorous treatment of geography that, if integrated into the standards, would improve New York's score substantially.

States Receiving I (Incomplete)

Twelve states are in this group: Arizona, Hawaii, Iowa, Montana, Nebraska, Nevada, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota and Wyoming. These states either do not have standards, or are comprehensively revising existing ones. Iowa has made a policy decision not to adopt state standards in any discipline. Iowa requires local districts to adopt standards and provides technical assistance and oversight for this process. South Dakota had standards in place until the summer of 1997 when the governor conducted a personal review, found them inadequate, and ordered them rescinded pending comprehensive revision.

TABLE 1. SCORING SUMMARY

State	General Characteristics	COMPREHENSIVENESS & RIGOR				Final Score
		Grades K–4	Grades 5–8	Grades 9–12	Total Score	
Alabama	15.5	19.0	20.0	10.5	49.5	65.0
Alaska	15.0	21.0	14.0	14.0	49.0	64.0
Arizona	—	—	—	—	—	—
Arkansas	9.0	5.0	5.0	4.0	14.0	23.0
California	13.0	13.5	12.5	11.5	37.5	50.5
Colorado	18.0	24.0	24.0	24.0	72.0	90.0
Connecticut	11.0	15.0	13.0	10.0	38.0	49.0
Delaware	11.6	9.1	8.8	12.7	30.6	42.2
District of Columbia	14.5	13.5	17.5	16.0	47.0	61.5
Florida	15.0	17.0	15.5	17.5	50.0	65.0
Georgia	12.0	6.0	11.0	6.5	23.5	35.5
Hawaii	—	—	—	—	—	—
Idaho	12.0	18.0	15.0	17.5	50.5	62.5
Illinois	11.0	15.5	11.5	13.5	40.5	51.5
Indiana	17.5	22.5	22.0	23.0	67.5	85.0
Iowa	—	—	—	—	—	—
Kansas	14.0	15.0	13.0	14.0	42.0	56.0
Kentucky	4.0	6.0	7.0	9.0	22.0	26.0
Louisiana	16.0	15.0	18.5	18.0	51.5	67.5
Maine	14.0	7.0	5.0	4.5	16.5	30.5
Maryland	10.0	6.0	7.0	4.0	17.0	27.0
Massachusetts	14.0	12.0	12.5	11.5	36.0	50.0
Michigan	17.5	21.0	21.0	19.5	61.5	79.0
Minnesota	9.0	5.0	5.0	3.0	13.0	22.0
Mississippi	11.5	8.5	10.0	16.0	34.5	46.0
Missouri	14.5	18.5	17.0	17.0	52.5	67.0
Montana	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—
Nevada	—	—	—	—	—	—
New Hampshire	14.5	21.5	20.5	19.5	61.5	76.0
New Jersey	11.0	9.5	8.5	8.0	26.0	37.0
New Mexico	13.0	10.0	8.5	9.5	28.0	41.0
New York	13.5	9.5	7.5	9.5	26.5	40.0
North Carolina	16.0	16.5	15.0	17.5	49.0	65.0
North Dakota	11.0	4.0	0.0	0.0	4.0	15.0
Ohio	14.0	14.0	14.5	11.5	40.0	54.0
Oklahoma	11.5	8.0	9.0	7.5	24.5	36.0
Oregon	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—
South Dakota	—	—	—	—	—	—
Tennessee	9.5	10.5	9.5	10.5	30.5	40.0
Texas	16.0	18.5	22.0	24.0	64.5	80.5
Utah	15.5	13.0	15.0	23.0	51.0	66.5
Vermont	9.0	6.0	7.0	0.0	13.0	22.0
Virginia	15.5	15.0	12.0	16.5	43.5	59.0
Washington	8.5	9.0	7.5	9.0	25.5	34.0
West Virginia	16.5	16.5	21.5	17.5	55.5	72.0
Wisconsin	5.0	8.0	9.0	9.0	26.0	31.0
Wyoming	—	—	—	—	—	—
	Max. Possible = 18	Max. Possible = 24	Max. Possible = 24	Max. Possible = 24	Max. Possible = 72	Max. Possible = 90

Standards were scored in two categories: by the merits of their general characteristics and by their comprehensiveness and rigor with respect to geography content, skills, and applications.

General Characteristics

Standards were first judged against six general criteria that are not specific to geography but contribute to the likelihood that standards will be understood and used. The power of standards to help raise the bar for U.S. education is at least in part a function of the extent to which key actors in the education system—students, parents, teachers, and curriculum developers—can understand and apply them.

The evaluation of standards' general characteristics employed a scoring scale of 0-3:

0 = standards *virtually* never embody the desired characteristic
1 = standards *sometimes* embody the desired characteristic
2 = standards *often* embody the desired characteristic
3 = standards *nearly always* embody the desired characteristic

Eighteen points is the maximum score that a state can receive for General Characteristics. Average scores reported below are based on the 39 jurisdictions whose standards could be evaluated. Table 2 presents each state's scores on these items.

The Six Characteristics

- **Standards are clearly written and jargon-free.**

  This criterion reflects the evaluators' view that public acceptance of standards as well as their utility to educators, parents, and students hinge upon their being clearly written and accessible. The average score for this criterion is 2.5 points. By and large, standards writers have steered clear of professional jargon and have written clearly and sensibly. Colorado, for example, footnotes all geographic terms that may be unfamiliar and references them in an extensive glossary.

- **Standards are specific regarding the knowledge and skills that students must learn and use.**

  Standards must provide specific and understandable information as to what students must know and be able to do. Vague or general standards put students and teachers at a disadvantage in understanding just what knowledge and skills must be mastered.

  States do not do well in meeting this criterion. The average score is 1.9. Poor performance on this measure is particularly disconcerting as the essential point of standards is to convey with precision what students should master. Far too many states cast their standards in terms that will likely leave curriculum developers, students, and teachers scratching their heads as to just what is expected of them. Arkansas, Delaware, Kentucky, Minnesota, Mississippi, New Jersey, New York, Tennessee, Vermont, Washington and Wisconsin all score a 1 in this measure.

  By and large, the standards of these states are cast in very broad terms. For example, grade 5-8 students in Arkansas are asked to "know and analyze the interdependence of the present and the past of the state, nation and world." Grade eight students in New Jersey are asked to "solve location problems using information from multiple sources," and to "compare information presented at different scales." In Tennessee, a grade 6-8 benchmark asks students to "know the physical and human characteristics of places." Vermont wants PreK-4 students to "locate and describe ecosystems in various times in Vermont, the U.S. and various locations around the world."

  Evaluators recognize that, as a matter of policy, many states have opted to frame their standards in general terms, often leaving the details to local districts. At some level, however, generality defeats the purpose of state standards and renders them little more than vague guidelines. The importance we attach to specificity reflects our view that state standards must be more than that if they are to lay claim to excellence.

  Significantly, there is a high correlation between states scoring poorly on this item and their faring poorly in the overall evaluation. All eleven states listed above receive final grades of F.

- **Standards are balanced so that they do not attempt to sway students towards any particular moral or social point of view.**

  This item reflects the evaluators' view that standards should be free of *a priori* value judgments. Standards are mostly strong in this regard. The average state score is 2.5. Only two states, Missouri and Wisconsin, score a 1.

  This item is particularly thorny. By and large, states whose standards receive less than a 3 do so because their standards seem to lead students toward the view that, in the relationship between human activity and the environment, the physical environment is mostly victimized by humans.

Evaluators' personal environmental values notwithstanding, we believe as a matter of educational philosophy that geography standards should equip students with the knowledge and analytical tools to enable them to come to their own judgments on such matters. Using geographical methodology, students can analyze both the impact of humans on the environment and the environment's impact on humans in a value-neutral way. A geographic perspective on the impact of typhoon-driven floods in Bangladesh or of volcanic activity on the island of Montserrat would conclude that human adaptation to the environment does not always leave humans in control of its fractious nature.

- **Standards employ strong verbs such as analyze, compare, demonstrate, describe, evaluate, explain, identify illustrate, locate, make, trace, utilize, etc.**

  This criterion reflects the evaluators' view that standards must expect students to perform specific and measurable actions that demonstrate their learning.

  Standards score reasonably well on this item with an average of 2.4. More often than we would have liked, however, evaluators find standards presented in nebulous terms such as "students will understand . . . ," "students will know . . . ," etc. Kentucky, Maryland, Washington, and Wisconsin score poorly in this area.

- **Standards incorporate benchmarks—specific activities by which students may demonstrate their mastery of the standard.**

  This criterion reflects the evaluators' view that standards must be able to serve as a basis for the development of sound assessment tools.

  The average score on this item is 1.83. To some degree, this middling score reflects the difficulty evaluators had in reaching agreement about individual states' uses of benchmarks, for they employ a wide range of terminology, definitions, and presentations. For example, in Alaska, benchmarks are called key elements; in Delaware, specific expectations; in Florida, learner expectations; in Indiana, proficiency statements and indicators; in Massachusetts, learned state components (core knowledge and skills); in Missouri, guiding questions; in North Dakota, exit outcomes; and in Utah, objectives, etc.

  In many states, particularly those whose standards are presented on a grade-by-grade basis (e.g., Alabama, Georgia, Texas, Virginia, and West Virginia), the standards are articulated in specific terms and in a fine grain. In such cases, we often determined that the standards themselves can serve as benchmarks for purposes of demonstrating student mastery and assessment development.

  As in the case of the specificity measure, there is a high correlation between a low score on this item and a low overall score. Thirteen states (Arkansas, California, Connecticut, Delaware, Illinois, Kentucky, Minnesota, New Jersey, North Dakota, Tennessee, Vermont, Washington, and Wisconsin) score 0 or 1 on this measure. Of these, only California and Illinois receive a final grade that is not failing.

- **Standards offer guidance to teachers in developing curriculum activities, classroom materials, and instructional methods.**

  This criterion reflects the evaluators' view that standards should assist educators in their efforts to teach the knowledge and skills necessary to enable students to gain mastery of the standards.

  States score least well on this item. The average score is 1.4 points. However, in evaluating this criterion, we learned that standards documents themselves do not necessarily contain all that states may have available for teachers. We were only able to evaluate this item on the basis of the materials we received in response to our request for standards documentation. Some states (e.g., Colorado, Michigan, Alaska) include rich and helpful materials for teachers within their standards publications. Others do not. But this is not the full story as states have taken a variety of approaches. Many states have developed separate supplemental print materials for teachers, some have posted resource materials on their education department World Wide Web sites, and still others have published CD-ROMs. Evaluators were unable to conduct a comprehensive review of these non-standards materials. We nevertheless continue to believe that the movement toward standards that place high expectations upon students must be supported by efforts to provide sound and usable standards-based resources for teachers.

TABLE 2. GENERAL CHARACTERISTICS OF STANDARDS

Maximum Possible = 18

State	Clearly Written	Specificity	Balanced	Strong Verbs	Benchmarks	Guidance	State Totals
Alabama	3.0	3.0	3.0	2.5	3.0	1.0	15.5
Alaska	3.0	2.0	3.0	2.0	2.0	3.0	15.0
Arizona	—	—	—	—	—	—	—
Arkansas	2.0	1.0	3.0	2.0	1.0	0.0	9.0
California	3.0	2.0	3.0	2.0	1.0	2.0	13.0
Colorado	3.0	3.0	3.0	3.0	3.0	3.0	18.0
Connecticut	2.0	2.0	2.0	3.0	1.0	1.0	11.0
Delaware	3.0	1.0	3.0	2.0	1.0	1.6	11.6
District of Columbia	3.0	2.0	3.0	3.0	2.5	1.0	14.5
Florida	3.0	2.0	3.0	2.0	2.0	3.0	15.0
Georgia	2.0	2.0	3.0	3.0	2.0	0.0	12.0
Hawaii	—	—	—	—	—	—	—
Idaho	2.0	2.0	2.0	3.0	2.0	1.0	12.0
Illinois	1.0	2.0	3.0	3.0	1.0	1.0	11.0
Indiana	3.0	3.0	2.5	3.0	3.0	3.0	17.5
Iowa	—	—	—	—	—	—	—
Kansas	2.0	2.0	2.5	2.5	2.5	2.5	14.0
Kentucky	1.0	1.0	2.0	0.0	0.0	0.0	4.0
Louisiana	3.0	3.0	3.0	3.0	3.0	1.0	16.0
Maine	3.0	2.5	3.0	2.5	2.5	0.5	14.0
Maryland	3.0	2.0	2.0	1.0	2.0	0.0	10.0
Massachusetts	3.0	2.0	3.0	2.0	2.0	2.0	14.0
Michigan	3.0	3.0	2.5	3.0	3.0	3.0	17.5
Minnesota	2.0	1.0	2.0	2.0	1.0	1.0	9.0
Mississippi	1.5	1.0	2.5	2.0	3.0	1.5	11.5
Missouri	3.0	3.0	1.0	3.0	1.5	3.0	14.5
Montana	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—
New Hampshire	3.0	2.0	2.0	3.0	1.5	3.0	14.5
New Jersey	3.0	1.0	3.0	3.0	1.0	0.0	11.0
New Mexico	2.0	2.0	3.0	3.0	2.0	1.0	13.0
New York	3.0	1.0	3.0	2.5	2.0	2.0	13.5
North Carolina	2.5	3.0	2.0	3.0	3.0	2.5	16.0
North Dakota	2.0	2.0	3.0	3.0	1.0	0.0	11.0
Ohio	3.0	2.0	2.0	3.0	2.0	2.0	14.0
Oklahoma	2.5	2.0	2.0	3.0	2.0	0.0	11.5
Oregon	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—
South Dakota	—	—	—	—	—	—	—
Tennessee	2.0	1.0	2.5	2.0	1.0	1.0	9.5
Texas	3.0	3.0	3.0	3.0	2.0	2.0	16.0
Utah	3.0	2.0	3.0	3.0	2.0	2.5	15.5
Vermont	3.0	1.0	2.0	2.0	1.0	0.0	9.0
Virginia	3.0	2.0	3.0	3.0	2.0	2.5	15.0
Washington	2.5	1.5	2.0	1.5	0.0	1.0	8.5
West Virginia	3.0	3.0	3.0	3.0	3.0	1.5	16.5
Wisconsin	1.0	1.0	1.0	1.0	1.0	0.0	5.0
Wyoming	—	—	—	—	—	—	—
Average	2.54	1.97	2.55	2.47	1.83	1.44	12.81

Scoring Guide:

0 = the standards virtually never embody the characteristic
1 = the standards sometimes embody the characteristic
2 = the standards often embody the characteristic
3 = the standards nearly always embody the characteristic

Comprehensiveness and Rigor

Standards were judged in each of three grade clusters (K-4, 5-8, and 9-12), clusters used by the national geography standards and the National Assessment of Educational Progress, for the comprehensiveness and rigor with which they present the essential content, skills, and applications of geography and for their overall organization. Evaluators used the same criteria for each grade cluster but looked for increasingly advanced material as they progressed to higher grades.

Comprehensiveness and Rigor employs a scoring scale of 0-3:

0 = essential material is *not* covered
1 = essential material is *partially* covered
2 = essential material is *mostly* covered
3 = essential material is very *well* covered

With eight criteria employed, each grade cluster can receive a maximum score of 24. Accordingly, the maximum score a state can receive for Comprehensiveness and Rigor is 72. State scores are reported by grade cluster in Tables 3, 4, and 5.

Geography Content (Five Criteria)

- ***The World in Spatial Terms (Fundamentals of Geography):*** characteristics and uses of maps (including mental maps) and other geographic representations, tools, and technologies; knowledge of Earth to locate people, places, and environments; knowledge of geographic vocabulary and concepts necessary for analysis of spatial organization of people, places, and environments on Earth's surface.

- ***Places and Regions:*** the physical and human characteristics of places; the fact that people create regions to interpret Earth's complexity; the way culture and experience influence people's perceptions of places and regions.

- ***Physical Systems:*** the physical processes that shape the patterns of Earth's surface; the characteristics and distribution of ecosystems on Earth's surface.

- ***Human Systems:*** the characteristics, distribution, and migration of human populations; the characteristics, distribution, and complexity of Earth's cultures; the patterns and networks of economic interdependence; the processes, patterns, and functions of human settlement; the way forces of cooperation and conflict among people influence the division and control of Earth's surface.

- ***Environment and Society:*** the way human actions modify the physical environment; the way physical systems affect human systems; the changes that occur in the meaning, use, distribution, and importance of resources.

Geography Skills (One Criterion)

Skills of Geographic Analysis (higher order use of basic geography knowledge): asking and answering geographic questions; acquiring, organizing, analyzing, and presenting geographic information; developing and testing geographic generalizations.

Geography Applications (One Criterion)

Applications of Geography: applying geographic perspectives to interpret the past and the present, and to plan for the future.

Overall Organization (One Criterion)

Overall Organization: presentation of a continuum of content knowledge, skills, and applications within the grade cluster.

How Geography Fares by Grade Cluster

Evaluators found little difference in scores for comprehensiveness and rigor across the three grade clusters. The 39-state average score for all eight criteria is 1.61 in the K-4 cluster; 1.57 in the 5-8 cluster; and 1.56 in the K-12 cluster. Evaluators found, as expected, some decline in scores as we progressed through the grade levels, but were surprised that the differences were so small. Because geography has most often been taught, if at all, in the elementary and middle grades, we suspected that standards might be significantly weaker in the high school grades. Based on the evaluation, however, it is clear that standards demand about the same level of teaching and learning at all three levels. In our view, the standards process has given geography a boost: greater emphasis in the curriculum in upper middle and high school grades.

It is distressing, however, that the average scores for comprehensiveness and rigor are so low: barely half the maximum possible score of 3. At all grade levels and in most states, overall scores are depressed by the poor showing in the Physical Systems content area (discussed below). If scores in Physical Systems are removed, the average grade cluster scores rise to 1.68 in K-4, 1.63 in 5-8, and 1.62 in 9-12. Even with Physical Systems thus discounted, however, geography standards have a long way to go in comprehensiveness and rigor at all grade levels to reach the level of excellence sought by the National Goals for Education.

TABLE 3. COMPREHENSIVENESS AND RIGOR, GRADES K-4

Maximum Possible = 24

State	Spatial Terms	Places & Regions	Physical Systems	Human Systems	Env. & Society	Skills	Applications	Organization	Total
Alabama	3.0	2.0	1.0	3.0	2.0	3.0	2.0	3.0	19.0
Alaska	2.0	3.0	2.0	2.5	3.0	2.5	3.0	3.0	21.0
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	1.0	0.0	0.0	0.0	1.0	2.0	1.0	0.0	5.0
California	1.5	1.5	0.5	2.0	1.5	2.0	1.5	3.0	13.5
Colorado	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	24.0
Connecticut	2.0	2.0	3.0	3.0	1.0	1.0	1.0	2.0	15.0
Delaware	1.3	1.3	1.0	1.0	1.6	1.0	0.3	1.6	9.1
District of Columbia	2.5	2.0	1.5	2.5	1.5	0.5	0.5	2.5	13.5
Florida	3.0	3.0	0.0	2.0	3.0	2.0	1.0	3.0	17.0
Georgia	2.0	1.5	0.0	0.0	1.0	0.0	0.0	1.5	6.0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	2.0	2.0	1.5	2.0	2.5	3.0	2.0	3.0	18.0
Illinois	2.0	2.0	2.0	2.0	3.0	0.5	1.0	3.0	15.5
Indiana	3.0	3.0	2.5	3.0	2.0	3.0	3.0	3.0	22.5
Iowa	—	—	—	—	—	—	—	—	—
Kansas	2.5	2.0	1.5	1.5	2.0	2.0	2.0	1.5	15.0
Kentucky	1.0	1.0	0.0	1.0	2.0	1.0	0.0	0.0	6.0
Louisiana	2.0	2.5	1.5	2.0	2.5	1.5	0.0	3.0	15.0
Maine	1.0	1.0	1.5	1.0	1.0	0.5	0.0	1.0	7.0
Maryland	1.0	1.0	0.0	1.0	1.0	1.0	0.0	1.0	6.0
Massachusetts	2.5	1.0	1.5	1.5	1.5	1.0	1.0	2.0	12.0
Michigan	2.0	2.5	3.0	3.0	2.5	2.0	3.0	3.0	21.0
Minnesota	1.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0	5.0
Mississippi	2.0	1.0	0.0	1.0	1.0	2.0	0.5	1.0	8.5
Missouri	1.5	2.5	1.5	3.0	2.5	3.0	2.5	2.0	18.5
Montana	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—	—	—
New Hampshire	3.0	3.0	3.0	3.0	3.0	2.5	2.0	2.0	21.5
New Jersey	2.0	1.0	0.0	1.5	2.0	1.5	0.5	1.0	9.5
New Mexico	1.0	1.0	1.5	1.5	1.0	1.0	1.0	2.0	10.0
New York	2.5	1.0	0.0	1.0	1.0	2.0	1.0	1.0	9.5
North Carolina	2.0	2.0	1.0	1.5	2.0	2.5	2.5	3.0	16.5
North Dakota	1.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0
Ohio	3.0	2.0	1.0	1.0	1.5	1.5	1.0	3.0	14.0
Oklahoma	1.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0	8.0
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	2.5	1.5	0.0	1.5	2.5	0.5	0.5	1.5	10.5
Texas	3.0	2.0	1.0	2.0	3.0	3.0	1.5	3.0	18.5
Utah	3.0	2.0	1.0	1.5	1.0	1.0	0.5	3.0	13.0
Vermont	1.0	0.0	1.0	1.0	2.0	0.0	0.0	1.0	6.0
Virginia	3.0	2.0	1.0	2.0	1.0	2.0	1.0	3.0	15.0
Washington	2.0	2.0	1.0	1.0	1.0	0.5	0.0	1.5	9.0
West Virginia	3.0	1.0	2.0	2.0	1.5	3.0	1.0	3.0	16.5
Wisconsin	2.0	0.0	1.0	0.0	2.0	1.0	1.0	1.0	8.0
Wyoming	—	—	—	—	—	—	—	—	—
Average	2.06	1.67	1.12	1.63	1.76	1.58	1.10	1.98	12.89

Scoring Guide:

0 = Essential material is not covered
1 = Essential material is partially covered
2 = Essential material is mostly covered
3 = Essential material is very well covered

TABLE 4. COMPREHENSIVENESS AND RIGOR, GRADES 5-8

Maximum Possible = 24

State	Spatial Terms	Places & Regions	Physical Systems	Human Systems	Env. & Society	Skills	Applications	Organization	Total
Alabama	2.5	2.0	2.5	3.0	3.0	1.5	3.0	2.5	20.0
Alaska	2.0	2.0	2.0	1.5	1.5	2.0	2.0	1.0	14.0
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	1.0	0.0	0.0	1.0	0.0	2.0	1.0	0.0	5.0
California	2.0	2.0	0.0	2.0	1.0	2.0	1.5	2.0	12.5
Colorado	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	24.0
Connecticut	2.0	2.0	2.0	2.0	1.0	1.5	0.5	2.0	13.0
Delaware	1.3	1.3	1.0	1.3	1.6	0.0	0.3	2.0	8.8
District of Columbia	2.0	2.5	2.5	3.0	2.5	2.0	0.5	2.5	17.5
Florida	2.0	2.0	0.0	2.0	3.0	3.0	0.5	3.0	15.5
Georgia	1.5	1.5	1.0	1.5	1.0	1.5	1.5	1.5	11.0
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	2.0	2.0	1.5	2.0	2.0	2.0	1.0	2.5	15.0
Illinois	1.0	1.0	2.0	1.5	2.0	2.0	0.5	1.5	11.5
Indiana	3.0	3.0	2.0	3.0	2.5	3.0	2.5	3.0	22.0
Iowa	—	—	—	—	—	—	—	—	—
Kansas	1.5	1.5	1.5	1.5	2.0	1.5	2.0	1.5	13.0
Kentucky	1.0	1.0	0.0	2.0	2.0	1.0	0.0	0.0	7.0
Louisiana	2.0	2.5	1.5	3.0	2.5	2.5	1.5	3.0	18.5
Maine	1.0	1.0	0.5	1.0	0.5	0.0	0.0	1.0	5.0
Maryland	1.0	2.0	0.0	1.0	1.0	1.0	0.0	1.0	7.0
Massachusetts	2.0	0.5	1.0	2.0	2.5	1.0	1.5	2.0	12.5
Michigan	2.0	3.0	2.5	3.0	3.0	2.0	2.5	3.0	21.0
Minnesota	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	5.0
Mississippi	2.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	10.0
Missouri	1.5	2.5	1.5	1.5	2.5	3.0	2.5	2.0	17.0
Montana	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—	—	—
New Hampshire	2.0	3.0	3.0	3.0	2.5	2.5	2.5	2.0	20.5
New Jersey	1.0	0.0	0.0	1.0	2.0	2.0	1.5	1.0	8.5
New Mexico	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	8.5
New York	2.0	1.0	0.0	1.0	0.0	2.5	0.0	1.0	7.5
North Carolina	1.0	2.0	0.0	2.0	2.0	2.5	2.5	3.0	15.0
North Dakota	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ohio	3.0	2.5	1.0	2.0	1.0	1.5	0.5	3.0	14.5
Oklahoma	1.0	1.0	1.0	1.0	1.0	1.5	1.0	1.5	9.0
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	1.0	2.0	2.0	1.5	1.5	0.0	0.0	1.5	9.5
Texas	2.5	3.0	2.0	3.0	3.0	3.0	2.5	3.0	22.0
Utah	2.0	2.0	1.5	1.5	1.5	2.0	1.5	3.0	15.0
Vermont	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0	7.0
Virginia	1.5	1.0	1.5	2.0	0.5	1.5	1.0	3.0	12.0
Washington	1.0	1.5	0.0	1.0	1.0	1.5	0.0	1.5	7.5
West Virginia	3.0	2.5	2.0	3.0	2.5	3.0	2.5	3.0	21.5
Wisconsin	2.0	0.0	1.0	1.0	2.0	1.0	1.0	1.0	9.0
Wyoming	—	—	—	—	—	—	—	—	—
Average	1.67	1.64	1.18	1.79	1.61	1.69	1.24	1.82	12.64

Scoring Guide:

0 = Essential material is not covered
1 = Essential material is partially covered
2 = Essential material is mostly covered
3 = Essential material is very well covered

TABLE 5. COMPREHENSIVENESS AND RIGOR, GRADES 9-12

Maximum Possible = 24

State	Spatial Terms	Places & Regions	Physical Systems	Human Systems	Env. & Society	Skills	Applications	Organization	Totals
Alabama	1.0	1.0	0.0	2.0	1.0	1.0	2.5	2.0	10.5
Alaska	2.0	1.5	2.0	2.0	1.5	2.0	2.0	1.0	14.0
Arizona	—	—	—	—	—	—	—	—	—
Arkansas	0.0	0.0	0.0	1.0	0.0	2.0	1.0	0.0	4.0
California	1.5	1.0	0.0	2.0	1.0	2.0	2.0	2.0	11.5
Colorado	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	24.0
Connecticut	1.5	2.0	3.0	1.5	1.0	0.0	0.0	1.0	10.0
Delaware	1.6	1.6	1.3	2.3	1.6	1.3	1.0	2.0	12.7
District of Columbia	1.0	2.0	3.0	2.5	2.0	2.5	0.5	2.5	16.0
Florida	2.5	3.0	0.0	2.0	3.0	2.0	2.0	3.0	17.5
Georgia	1.0	1.5	0.0	0.5	1.0	1.0	0.0	1.5	6.5
Hawaii	—	—	—	—	—	—	—	—	—
Idaho	2.0	2.5	2.0	2.5	2.5	2.0	2.0	2.0	17.5
Illinois	1.5	0.5	2.0	2.0	1.5	2.0	2.0	2.0	13.5
Indiana	3.0	3.0	2.5	3.0	2.5	3.0	3.0	3.0	23.0
Iowa	—	—	—	—	—	—	—	—	—
Kansas	1.5	1.5	2.0	2.0	1.5	2.0	2.0	1.5	14.0
Kentucky	1.0	1.0	0.0	1.0	2.0	1.0	1.0	2.0	9.0
Louisiana	2.0	2.0	1.0	2.5	2.5	2.5	2.5	3.0	18.0
Maine	1.0	1.0	0.0	1.0	0.0	0.5	0.0	1.0	4.5
Maryland	0.0	0.0	0.0	2.0	1.0	0.0	0.0	1.0	4.0
Massachusetts	1.5	1.0	0.5	1.5	1.5	1.5	1.5	2.5	11.5
Michigan	1.0	3.0	1.5	2.5	2.5	3.0	3.0	3.0	19.5
Minnesota	1.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	3.0
Mississippi	2.5	2.5	1.0	2.5	1.5	3.0	0.5	2.5	16.0
Missouri	1.5	2.0	1.5	2.0	2.0	3.0	3.0	2.0	17.0
Montana	—	—	—	—	—	—	—	—	—
Nebraska	—	—	—	—	—	—	—	—	—
Nevada	—	—	—	—	—	—	—	—	—
New Hampshire	2.0	2.5	3.0	3.0	2.0	2.0	3.0	2.0	19.5
New Jersey	0.0	1.0	0.0	1.0	2.0	1.5	1.5	1.0	8.0
New Mexico	1.0	1.0	1.0	1.5	1.0	1.0	1.5	1.5	9.5
New York	1.0	1.0	0.5	1.5	0.5	3.0	1.0	1.0	9.5
North Carolina	1.5	2.5	0.5	3.0	2.0	2.5	2.5	3.0	17.5
North Dakota	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ohio	1.0	1.5	0.0	1.0	1.5	1.5	2.0	3.0	11.5
Oklahoma	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.5	7.5
Oregon	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—
South Carolina	—	—	—	—	—	—	—	—	—
South Dakota	—	—	—	—	—	—	—	—	—
Tennessee	1.0	1.0	2.0	1.0	2.0	1.0	1.5	1.0	10.5
Texas	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	24.0
Utah	3.0	2.5	3.0	2.5	3.0	3.0	3.0	3.0	23.0
Vermont	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	1.0	2.0	1.0	3.0	2.0	2.0	2.5	3.0	16.5
Washington	0.5	1.5	1.0	1.0	1.5	1.5	0.5	1.5	9.0
West Virginia	2.0	1.5	1.5	2.0	2.0	3.0	3.0	2.5	17.5
Wisconsin	1.0	1.0	1.0	1.0	1.0	2.0	1.0	1.0	9.0
Wyoming	—	—	—	—	—	—	—	—	—
Average	1:36	1:54	1:15	1:76	1:55	1:78	1:58	1:83	12:56

Scoring Guide:

0 = Essential material is not covered
1 = Essential material is partially covered
2 = Essential material is mostly covered
3 = Essential material is very well covered

How Geography Fares by Content Area

Those committed to continued improvement of standards will be interested in an analysis of how geography fares in each of its key content areas as well as its skills and applications. For purposes of this analysis, the scores states receive for overall organization of their standards are not included so as to focus sharply on their treatment of key elements of the discipline. Figure 1 on page 14 illustrates the key points discussed below.

- ***The World in Spatial Terms:*** This area, which embraces geography's fundamentals, demonstrates a clear and not surprising result. Scores are highest in the K-4 grade cluster, where they average 2.05. They decline dramatically in middle grades, falling to 1.67, and again at the high school level, where they reach 1.36. In the early grades, state standards generally do a good job of introducing students to maps, globes, location and place names. Reflecting the typical "expanding horizons" social studies curriculum, standards introduce these concepts in the context of home, school, neighborhood, and community in the K-4 cluster, moving to the state, nation, and world in the middle and high school grades.

  Standards do generally less well in providing students with a sound grounding in mental maps and the vocabulary and concepts of spatial analysis. This new material, elucidated for K-12 education in *Geography for Life*, will take time to be embraced by standards developers. Concepts of distance, direction, and scale are almost universally addressed, but important concepts in the tool kit of spatial analysis—point, line, area, volume, pattern, density, diffusion, dispersion, hierarchy, linkage, and accessibility—are almost entirely missing. The weakness of standards in this area is a serious deficiency as these concepts lay the groundwork for students' subsequent ability to analyze the arrangement of human and physical phenomena on Earth's surface. We suspect that their absence reflects the fact that, prior to publication of *Geography for Life*, these concepts were considered the domain of postsecondary geography and were seldom addressed in the K-12 curriculum.

- ***Places and Regions:*** Standards' treatment of places and regions is mid-range at all grade levels, scoring an average of 1.67 in K-4, 1.63 in 5-8, and declining slightly to 1.54 in 9-12. These concepts are central to geography and have been part of the elementary and secondary curriculum for decades. As a result, we were surprised that standards did not do a better job in presenting them.

  In nearly all states, the concept of place as a way of describing the special meanings that humans have imparted to a location is introduced and developed through the early and middle grades. Standards do less well in their treatment of the important concept of regions as a basis for analyzing human and physical phenomena. Many states' standards ask students to identify various regions as a prelude to their study of the historical events that took place in them. While this treatment enhances student knowledge of the world, it does not address the rich geographic concept of region as a way of understanding how phenomena are distributed on Earth's surface.

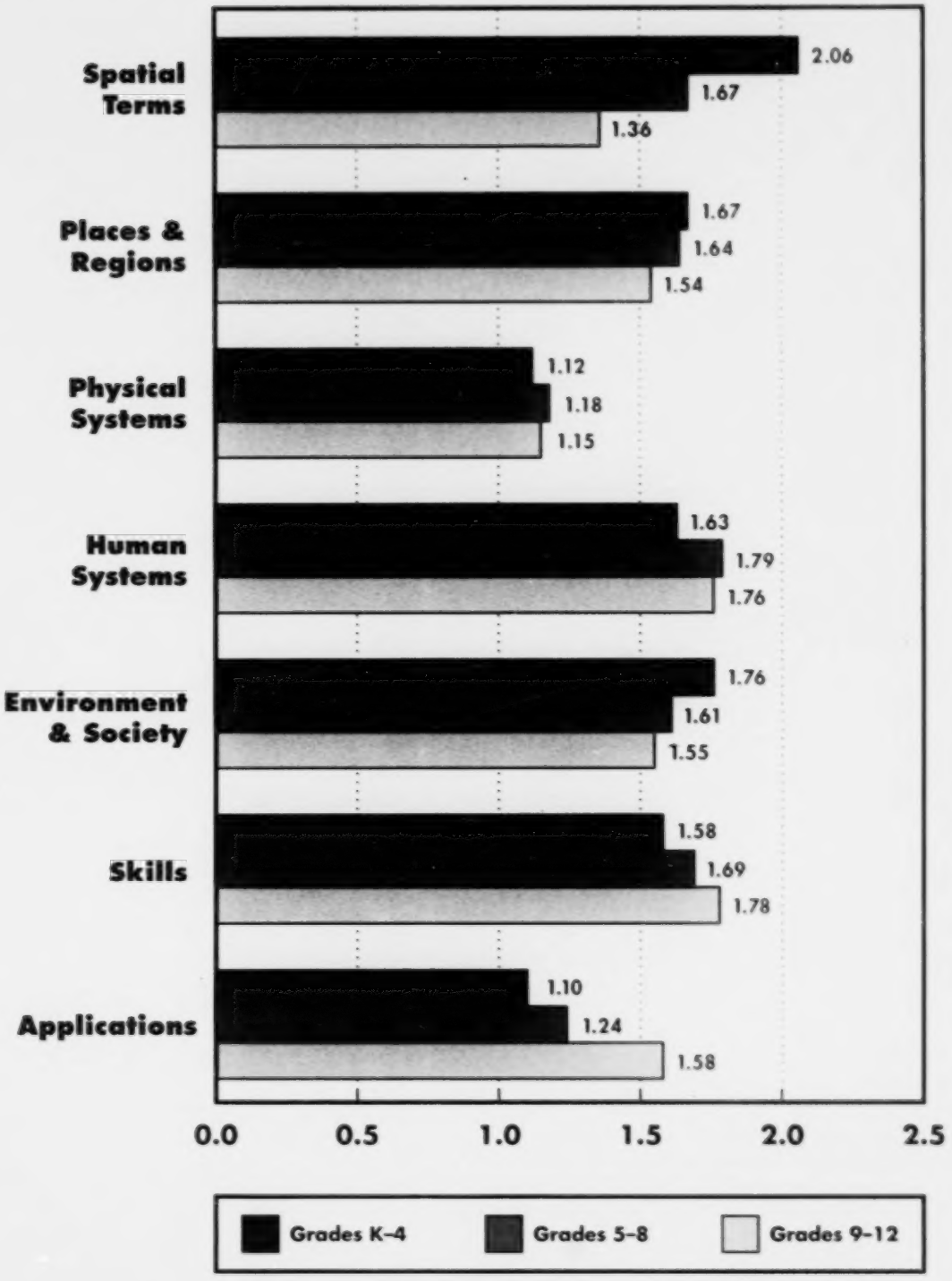
- ***Physical Systems:*** Evaluators found generally poor scores in states' treatment of physical systems, an essential of geography content knowledge. By and large, standards address only climate, meteorology and, less frequently, ecosystems. They seldom address plate tectonics, erosion, soil formation, ocean circulation, the hydrologic cycle, and other processes important to a full understanding of Earth's features. Physical systems averaged 1.12 in the K-4 and 5-8 grade clusters and 1.15 in the grade 9-12 cluster. This poor performance lowered the final scores of nearly all states.

  As the pattern emerged, however, evaluators hypothesized that these elements might be missing from geography standards because they had been incorporated into state science standards. A limited sampling of science standards (from Florida, Maine, Michigan, New Jersey, New Mexico, and West Virginia) confirmed the hypothesis. These states' science standards thoroughly cover physical systems under headings such as Earth Science, Environmental Science, and Earth Systems.

  This finding suggests a fertile opportunity for geography teachers, particularly in the middle grades, to collaborate with their science-educator colleagues to ensure that Earth's physical systems and processes are covered and that the significance of these phenomena for both science and geography understanding is brought home to students.

- ***Human Systems:*** Evaluators were not surprised to find that human systems scored the highest of the content areas with average scores of 1.62 in K-4, 1.78 in 5-8, and 1.76 in 9-12. We speculate that this relatively strong showing reflects the fact that geography is nearly always taught within the social studies curriculum and that, as a result, the human/cultural side of the discipline has been emphasized. Often we found human systems concepts of economic interdependence within standards for economics, and cultural complexity elsewhere within social studies. In these cases, we gave standards credit for their inclusion only when the concepts were presented in a spatial context.

FIGURE 1. NATIONAL AVERAGE SCORES
Maximum Possible = 3.0



- ***Environment and Society:*** This area of geography content receives most emphasis in the K-4 cluster with an average score of 1.75, and less in both the 5-8 cluster where it averages 1.60 and the 9-12 cluster where it falls to 1.55. Standards in the elementary grades emphasize awareness of the physical environment in the context of the social studies "expanding horizons" model, sometimes cast in terms of individual responsibility for environmental stewardship. In middle and upper grades, the treatment is more geographic, with students being asked to examine ways in which humans have adapted to various environments and responded to natural hazards. Not surprisingly, evaluators also found substantial coverage of this area in the science standards we examined.

- ***Skills:*** The important skills associated with geographic inquiry score relatively well, earning an average score of 1.57 in the K-4 cluster, rising to 1.69 in 5-8, and 1.77 in 9-12. Acquiring, organizing, and presenting geographic information is emphasized throughout. Less emphasis is given to analyzing information and very little to developing and testing geographic generalizations.

- ***Applications:*** Standards are weak in their expectations of students in this area. There is almost no coverage of applications in the K-4 cluster. The K-4 score of 1.08 likely indicates that state standards developers believe that younger students have not yet mastered the fundamental information and therefore cannot be expected to apply it. This section scores modestly better in the 5-8 grade cluster, rising to 1.23, and shows marked improvement at 9-12 with an average score of 1.57. For the most part, however, the standards fall short on asking students to use geographic knowledge in interpreting past and present events, and are nearly silent on asking them to speculate on future occurrences. Very few states ask high school students to demonstrate their geography mastery by requiring them to complete a sustained geography project.

CONCLUSION

Achieving the reforms implied by adoption of the National Goals for Education, particularly the development and successful implementation of discipline-based standards, has challenged every aspect of our nation's education system. The effort has also stirred political debate over fundamental issues that date back to founding principles of governance and constitutional responsibility.

Discussion of national education policy issues is beyond the scope of this report, but the fall-out from this on-going debate has had an impact upon geography and the other disciplines included within the National Goals. Their inclusion drew each into the policy arena. And the call for standards, whether national or state, has challenged each field to examine its fundamental tenets and accustomed values in the context of a high profile nationwide debate.

When policy makers challenged the disciplines to begin the standards development process, each sought to bring forward some of its best thinkers, writers, and practitioners to offer up a compelling statement of what students should know and be able to do in order for them and our nation to succeed.

Each discipline did so against the backdrop of its perceived place in U.S. elementary and secondary education and of public understanding of its value as part of a complete education for our children. Compared with the other disciplines included in the National Goals, geography had the greatest distance to travel.

Evaluators surmise that the relatively poor showing of state geography standards reflected in this study is attributable, at least in part, to the formidable hurdles geography had to overcome to meet the standards challenge. A number of these are discussed below in an effort to set the stage for improvement in geography education.

Geography Had Disappeared from the Curriculum

Geography had all but disappeared from U.S. schools by the mid-1980s when the National Geographic Society initiated a far-reaching program to restore it. That program was just beginning to make an impact when the National Goals for Education were adopted in early 1990. As a result, geography was catapulted into the standards development process with few classroom teachers prepared to meet the challenge.

Geography in the Social Studies

Geography's position as a discipline traditionally taught within the social studies yielded additional challenges to the development of first-rate standards.

All disciplines within the social studies (notably history, geography, government/civics, and economics) have been challenged by the fact that discipline-based standards run counter to a deeply held view in the social studies community: content integration. Much U.S. social studies education is based on the notion that the field is inherently integrative and that disciplinary boundaries should be blurred in favor of horizontal acquisition of knowledge and viewpoints from the widest possible range of content areas.

Indeed, the National Council for the Social Studies' initial response to the National Goals for Education was ambivalent at best—even though two of the five disciplines listed by the nation's chief executives (history and geography) are traditionally taught within the social studies. After an initial period of active resistance to the Goals, the Council, in its words, "successfully annexed social studies to the national agenda and named a task force to develop curriculum standards."

These standards, *Expectations of Excellence: Curriculum Standards for Social Studies*, published by the National Council for the Social Studies in 1994, presented an architecture for social studies standards based not on disciplines, but on ten thematic strands. Inevitably, this approach collided with the National Goals' call for discipline-based standards, and appears to have complicated rather than facilitated the job of standards developers in geography, history, economics, civics, and other social science disciplines.

It is not the job of this evaluation to resolve the disputes over various approaches to social studies instruction. But it is clear that the effort to reconcile this added element of complexity has affected the geography standards of many states, often yielding convoluted presentations that sacrifice clarity and specificity in an effort to find balance between thematic and discipline-based articulations of what students should know and be able to do.

A further problem for all disciplines embraced by the social studies lies in the sheer volume of content to be addressed. In the course of this study, evaluators could sense the struggle among disciplinary advocates arguing for more attention to their favored fields. Anecdotal evidence gained from conversations with several state social studies supervisors confirmed this suspicion. In some states, decisions were made simply to allot the same number of content and/or performance standards to each discipline or to allot them a specific number of pages. In others, the relative power of organizations promoting the various disciplines came into play.

Geography was at a disadvantage in this setting for it had barely gained a voice in state education policy making and had relatively little clout.

Geography vs. "the Geography of"

Many states' standards, even otherwise good ones, reflect a subtle but important confusion about what geography is. At the broadest level, this confusion can be summarized in the difference between approaching geography as a discrete discipline with a unique perspective versus simply knowing where things are located on a map.

The first view distills what geographers understand. It is the view they urgently want standards and curriculum developers to embrace. Teaching geography from this perspective, they argue, arms our children with tools and skills that will help them make sense of their world, no matter what problem or issue is under study.

School geography has redefined itself in the past decade. The fact that there are now national and state standards is a significant achievement. It is disappointing, however, that so few states' standards are good enough for students to benefit fully from this subject's intellectual and practical richness.

However, the second view is what the public and many educators generally understand geography to be and what most parents expect schools to impart to their children. This is a significant problem in the context of geography standards development, for it limits the extent to which standards writers are willing or able to incorporate a deeper treatment of the discipline.

Limiting geography to improving students' knowledge of places and locations characterizes the standards of many states, particularly those whose curriculum and standards are based on the so-called history-social science model. This model, pioneered by California in the mid-1980s, brings history to the forefront as the central structure of the social studies. It supports enhanced history learning with a highly specific curriculum that draws upon other disciplines (notably geography) to help students visualize the historic themes and events they are studying. As a strategy for escaping the gravitational pull of the social studies thematic models for curriculum organization, this effort has much to recommend it. As a framework for presenting geography, however, this model falls short because it misses the essence of spatial analysis.

National Model Standards

In 1993-94, geographers and geographic educators developed model national standards for the discipline. Supported by grants from the U. S. Department of Education, the National Endowment for the Humanities, and in-kind contributions from the National Geographic Society, this process yielded *Geography for Life: National Geography Standards*. It also yielded difficulties for state standards developers by establishing a new paradigm for organizing and presenting geography.

For most of the preceding decade, K-12 geography's content and skills had been organized in terms of the social studies "expanding horizons" model with considerable attention paid to the scope and sequence recommendations contained in *Guidelines for Geographic Education*, published in 1984 by the National Council for Geographic Education and the Association of American Geographers. The *Guidelines* organize the discipline around five fundamental themes: location, place, relationships within places (humans and environments), movement, and regions. The "Five Themes," as this approach came to be known, were widely viewed as a workable curriculum organizer for elementary and secondary geography education.

However, many geographers argued vigorously that the Five Themes did not adequately define their discipline. Developing model national standards presented them with an opportunity to address the shortcomings of the themes, particularly their failure to address the discipline's signature spatial perspective.

Geography for Life substantially recast the presentation of geography for elementary and secondary schools, presenting eighteen geography standards grouped within six "essential elements": The World in Spatial Terms, Places and Regions, Physical Systems, Human Systems, Environment and Society, and The Uses of Geography.

Arguments regarding the relative merits of the two models will likely echo through the geography community for years to come. Meanwhile, two realities emerge from this evaluation.

First, state standards developers have found *Geography for Life* confusing and difficult to use as a guide to their efforts. Both our review of state standards and our conversations with state officials and other participants in the process revealed these difficulties. State officials described *Geography for Life* as "horribly organized," "academic," and "unrelated to our curriculum." Many state standards reflect strenuous efforts (some successful, some not) to integrate the Five Themes and the six essential elements into a

workable framework that relates to curriculum realities.

Second, the timing of geography's shift from the *Guidelines for Geographic Education* to *Geography for Life* was unfortunate in the context of standards development. Many states had started developing standards based on the *Guidelines* prior to publication of *Geography for Life*, and were faced with the need to adjust to a new model in the middle of their projects.

As is clear from the current survey, geography will need to invest substantial energy to promote understanding of the content, point of view, and role of *Geography for Life* as a guide to state standards and curriculum development if this national model is to be fully useful to education reform.

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School geography has re-defined itself in the past decade. The fact that there are now national and state standards is a significant achievement. It is disappointing, however, that so few states' standards are good enough for students to benefit fully from this subject's intellectual and practical richness.

Only 20 states and the District of Columbia receive passing grades for their geography standards and nearly as many flunk. A great deal must be done if geography is to meet the challenge laid down by the National Goals, for U.S. students are still being shortchanged.

Geographers need to remain committed to the notion that standards-based education reforms are not only essential to our children's and our nation's future, but also that standards offer the best route to revitalization of this discipline. This means staying at the table as states continue to develop, revise, and implement academic standards. It also means accomplishing a number of specific tasks that can help standards and curriculum developers do their jobs better.

Ultimately, the quality of state standards in any discipline is a function of public conviction.

Geography for Life needs help if it is to become a useful guide to elementary and secondary educators. New materials must be developed that offer teacher- and curriculum-friendly presentations of *Geography for Life*'s eighteen standards and that link them to the realities of the K-12 curriculum. This will require the crafting frameworks that enable educators to reconcile the *Guidelines for Geographic Education* with *Geography for Life*'s emphasis on the spatial perspective and more rigorous geography.

These tasks are timely. Eleven states are still developing their standards or are revising earlier efforts. In any case, the standards process is evolutionary. States will likely be revisiting their standards for the foreseeable future, thus providing opportunities for continued strengthening.

Development of state assessment instruments offers further opportunities to specify and clarify geography. Many states are now, or soon will be, developing assessment tools that will challenge all disciplines to reduce the contents of their national models to their most vital elements. Geography standards can benefit from this process as it will demand a high level of clear thinking about what matters most.

Finally, geographers must continue to find ways to illuminate the value of their discipline. Ultimately, the quality of state standards in any discipline is a function of public conviction. When Americans, acting in their roles as business leaders, legislators, school board members, and parents, decide that knowing and using geography is important to their children's future, the nation and the field of geography will have first-class standards.

ALABAMA

Summary: Alabama receives a C with a score of 65. The draft social studies standards are to be delivered to the State Board of Education in early 1998 for adoption.

The standards present geography in the context of a history/social science model that integrates the discipline into a history-driven curriculum. This notwithstanding, considerable emphasis is placed on learning and using maps and globes in grades 1-5, and there is a solid set of geography standards for a required one-semester seventh grade course in World Geography.

These standards are considered "minimum and required by law." They are "fundamental and specific but not exhaustive. Local districts can add content standards to reflect local philosophies. . . ."

Alabama

GENERAL CHARACTERISTICS	15.5
COMPREHENSIVENESS & RIGOR	
Grades K – 4	19.0
Grades 5 – 8	20.0
Grades 9 – 12	10.5
TOTAL SCORE (out of 90)	65.0
GRADE	C

"Alabama Course of Study: Social Studies," Alabama State Department of Education, Draft, 1997

Geography in the Curriculum: K-2 geography appears within four themes called Map and Globe Skills, Graphic Organizational Skills, Reference Skills, and Geographic Awareness. Kindergartners study citizenship, first graders study history and geography, and second graders study "Interdependence." These themes continue in grade three when students study the Land and its People. In fourth grade, within the Alabama History and Geography course, a new theme is introduced: Alabama's Physical Location and Characteristics. Some geography also appears within other themes in this grade. Fifth and sixth graders study U.S. History. Fifth grade students are exposed to geography within the maps and globes, graphic and reference themes mentioned above and as elements within a historical context. Sixth grade geography loses emphasis and is scattered throughout the History course. Seventh graders take a semester of citizenship and a semester of geography. Eighth and ninth graders study courses entitled World History and Geography in which minimal geography appears. Tenth and eleventh graders study U.S. History and Geography, but again geography plays a minor supporting role. Twelfth graders study government and economics.

Standards Presentation: The state's conceptual framework has four program goals including Geographic Literacy. Its over-arching purpose is to develop civic responsibility. K-8 geography standards appear as themes (noted above) in K-5. In sixth grade, standards 10, 11, 13 and part of 32 (out of 33) relate to geography. The seventh grade World Geography course bases its standards on six essential elements explored in *Geography for Life*, the national standards. Grades 8-11 standards are based on history and little geography is specified.

- **Model:** Standards are presented in a history/social science model and draw upon *Guidelines for Geographic Education* and *Geography for Life* for their geography content.
- **Grade clusters:** Standards are presented grade by grade, K-11.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are balanced. (score: 3)
- Standards often employ strong verbs. (score: 2.5)
- Standards incorporate benchmarks. (score: 3)
- Standards sometimes offer guidance to teachers. (score: 1)

Score: 15.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards addressing geography's fundamentals are particularly strong as are human systems and skills, although there is no mention of mental maps. Places and Regions and Environment and Society score lower. Coverage of Physical Systems and Applications is minimal. Standards are nicely organized and reflect a relatively good foundation for geography learning, particularly with respect to maps and globes. Score: 19 of 24

Middle school standards score high because of the required one semester geography course in seventh grade. Physical Systems, barely mentioned in K-4 standards, receive high scores in the seventh grade. This is where material on ecosystems appears. Scores on all other content areas, including environment and society, are good. Students are asked to apply what they have learned to numerous problems although skills receive low scores. Clearly, seventh grade is where middle school students can shine in geography. Score: 20 of 24

High school standards receive short shrift. Rigor and comprehensiveness in geography all but disappear. Only human systems and applications score above 1. Courses in 9th-11th grade are entirely history-driven, despite their titles, and place little emphasis on the geographic perspective. Score: 10.5 of 24

Score for Comprehensiveness and Rigor: 49.5 of 72

Final score: 65 of 90

ALASKA

Summary: Alaska receives a C with a score of 64. The standards and key elements address all of geography's content areas, skills, and applications. Standards are strong in elementary grades but lose their punch in middle and upper grades. Standards do not provide much potential for advancing geography learning beyond sixth grade.

Alaska has made a considerable effort to surround its standards with innovative materials and resources. Kudos to the state for putting a wide range of supporting materials on CD-ROM to accompany the printed documents.

Still, these standards have significant flaws. Standards and key elements themselves are stated in the same words for all age levels. As a result, scores for organization suffer at the middle and high school levels. This problem is alleviated somewhat by excellent Example Activities that illustrate appropriate knowledge and skill masteries for each age group. But while these examples add essential specificity, they are discounted by a disclaimer (printed on every other page) stating that "these activities are not state requirements or performance objectives, but rather examples of ways to interpret the standard's key elements; each district will determine its own benchmarks and develop its own set of activities."

Evaluators recognize that this presentation responds to a strong local control tradition in Alaska, but the effect is to render the state's effort less powerful than might otherwise have been the case.

In addition, evaluators believe that Alaska's use of age clusters, rather than grade clusters, could cause confusion for parents, students, and teachers as they try to determine what students should know in which grades.

Geography in the Curriculum: In teaching geography, Alaska treats the subject as a separate disciplinary strand within its K-12 Social Studies Framework. Geography is generally taught as part of elementary social studies and often as a stand-alone course in grades 6-8. It is not commonly taught in high school as a specific course but may be included in history courses.

Standards Presentation: Alaska presents six general geography standards that span age levels: (A) Seeing the World in Spatial Terms; (B) Places and Regions; (C) Physical Systems; (D) Human Systems; (E) Environment and Society; and (F) The Power of Geography.

Each standard is elaborated upon by key elements (which also span all specified age levels) that "identify the major component parts, features, traits or dimensions" of the standard. These are followed by example activities clustered by age levels (see Summary above).

- **Model:** Alaska's geography standards are modeled on the national standards, *Geography for Life*, and draw upon *Guidelines for Geographic Education*.
- **Grade clusters:** The standards and their key elements are supported by suggested activities presented in four clusters: Primary level (ages 5 to 7); Level 1 (ages 8 to 10); Level 2 (ages 12 to 14); and Level 3 (ages 16 to 18). Interestingly, ages 11 and 15 are not mentioned.

STATE REPORT CARD

Alaska

GENERAL CHARACTERISTICS	**15.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	21.0
Grades 5 – 8	14.0
Grades 9 – 12	14.0
TOTAL SCORE (out of 90)	**64.0**
GRADE	**C**

Alaska Social Studies Framework: Using Standards to Build Educational Excellence. Alaska Department of Education, December 1998.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards and key elements are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills. Because standards and objectives themselves use the same words at all age levels, they provide too little grade-specific direction. Activities, which add meat to these bones, are examples only (see Summary above). (score: 2)
- Standards are balanced. (score: 3)
- Standards often employ strong verbs. (score: 2)
- Standards incorporate benchmarks. Suggested activities amplify the standards and key elements and give direction that could be used as benchmarks for both curriculum development and assessment. Regrettably, the *Framework* states that districts are not bound by these suggested activities and will develop their own (see Summary above). (score: 2)
- Standards offer guidance to teachers. The *Framework* contains ten pages of sample lesson plans, assessment strategies and other useful information to assist in the development of curriculum. In addition, Alaska has created a CD-ROM to accompany the Framework. (score: 3)

Score: 15 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards are, for the most part, strong and imaginative. One key element, for example, asks students "to understand how and why maps are changing documents." Places and Regions, Environment and Society, and Applications receive top scores. Fundamentals, Physical Systems, Human Systems, and Skills receive solid scores. Overall, standards are well organized. Score: 21 of 24

Middle school standards decline in rigor and comprehensiveness. No content area receives a top score. Human Systems and Environment and Society scores slump. But Skills and Applications score well enough. Organization suffers for reasons cited in the Summary. Score: 14 of 24

High school standards scores mimic those of middle grades for the reasons mentioned above. Score: 14 of 24

Score for Comprehensiveness and Rigor: 49 of 72

Final Score: 64 of 90

ARIZONA

Summary: Arizona receives an Incomplete. The state has no social studies (or geography) standards at the present time. As of fall 1997, the State Board of Education was forming a drafting committee to begin the process. No estimated completion date has been set. Social Studies is the last subject area for which standards are being developed in Arizona as earlier efforts were deemed insufficient by the State Board. Meanwhile, the social studies curriculum is guided by "essential skills" that are not considered standards for purposes of this evaluation.

Score: Incomplete

ARKANSAS

Summary: Arkansas receives an F with a score of 23. Its standards give cursory and scattered recognition to the *Guidelines for Geographic Education*'s five themes (location, place, movement, human/environmental interaction, and regions), but they are so superficial and general regarding geography content knowledge, skills, and applications that evaluators were hard pressed to find a way to grade them. To the extent that these standards address geography at all, the discipline is presented in very broad terms that forces one to deduce what students need to know to satisfy particular learning expectations (benchmarks).

Geography in the Curriculum: Scope and sequence for geography are locally determined.

Standards Presentation: Arkansas's social studies standards are presented in six strands: Interdependence; Continuity and Change; Cultural Perspectives; Scarcity and Choice; Cooperation and Conflict; and Citizenship. Each strand includes a broadly stated content standard supported by a list of Student Learning Expectations. References to geography are found throughout the expectations statements, but there is no systematic presentation of the discipline's knowledge, skills, or applications at any grade level.

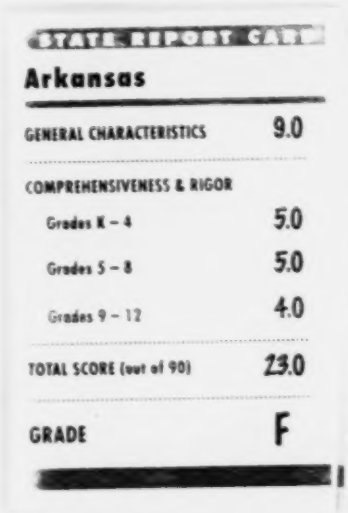
- **Model:** Arkansas' standards reflect the National Council for the Social Studies' *Expectations of Excellence*.
- ***Grade Clusters:*** Learning Expectations are presented in three grade clusters, K-4, 5-8, and 9-12.

General Characteristics

This category measures six characteristics possessed by high quality standards on a four-point scale of 0-3.

- Standards are often clearly written and jargon-free. (score: 2)
- Standards sometimes specific regarding knowledge and skills. (score: 1)
- Standards are balanced. (score: 3)
- Standards often employ strong verbs. (score: 2)
- Standards incorporate benchmarks in the form of Learning Expectations, but for geography these are very general. (score: 1)
- Standards offer almost no guidance to teachers. (score: 0)

Score: 9 of 18



Arkansas Curriculum Frameworks – Social Studies. Arkansas Department of Education, 1996.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content:* The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards lay no ground work in Fundamentals or content knowledge. They fail to address even basic place name geography. Students are asked to use maps and globes to analyze or examine interdependence, change and continuity and the like, but are given no basis upon which to do so. There is no progression of geography knowledge. Score: 5 of 24

Middle school standards are similarly weak in all areas. A nod is made in the direction of Human Systems, but even this is superficial and general. Score: 5 of 24

High school standards address Human Systems, but in a perfunctory manner. Skills receive some emphasis. Score: 4 of 24

Score for Comprehensiveness and Rigor: 14 of 72

Final Score: 23 of 90

CALIFORNIA

Summary: California receives a D with a score of 51. The history-driven social studies curriculum model pioneered by California with the 1987 adoption of its *History-Social Science Framework* places geography in a supporting role to history learning. California's "*Challenge Standards*" mirrors this approach, emphasizing map skills and location knowledge throughout. Geography is integrated throughout the grade level standards (as it is in the *Framework*) as a way of setting the stage for historical events. Students who master these standards will likely have a strong knowledge of the physical characteristics of the places they have studied. Whether they will be able to apply geography's powerful spatial analysis tools to other endeavors is problematic.

California	
GENERAL CHARACTERISTICS	13.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	13.5
Grades 5 – 8	12.5
Grades 9 – 12	11.5
TOTAL SCORE (out of 90)	50.5
GRADE	D

"History-Social Science Challenge Standards for Student Success: Third Draft for Interim Content and Performance Standards," California Department of Education, 1997. The draft has not been adopted.

Geography in the Curriculum: The teaching of geography is integrated throughout California's curriculum as part of the *History-Social Science Framework*. The discipline is taught as a discrete subject in two ninth grade electives: Physical Geography and World Regional Geography.

Standards Presentation: The draft "Challenge Standards" augments the *History-Social Science Framework for California Public Schools* by specifying standards that correspond to the Framework's subject matter and presentation. Each standard is followed by more specific bulleted examples of the types of work students should do to meet the standard. The examples are followed by samples of specific activities or tasks that give students the opportunity to demonstrate they can meet the standard.

- **Model:** The use of nationally recognized geography models is not apparent in the "Challenge Standards."
- ***Grade clusters:*** Standards are specified grade-by-grade (except for grade nine) and for 10-12 high school courses. In addition, California also provides standards for "thinking and comprehension, basic skills, and participation skills" in clusters covering K-5, 6-8, and 9-12.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills. (score 2)
- Standards are balanced. (score 3)
- Standards often employ strong verbs. (score: 2)
- Standards sometimes incorporate benchmarks, but they are too general to be useful for assessment. (score: 1)
- Standards offer guidance to teachers through sample activities and the specifics of the courses which are very complete. But nothing is included to help a teacher teach geography per se. (score: 2)

Score: 13 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards at this level only partially cover geography's Fundamentals and the study of Places and Regions. Physical Systems receive almost no attention, but Human Systems are mostly covered. Skills score slightly better than Applications, but both receive only middling totals. The standards are well organized and provide information in a clear progression. Score: 13.5 of 24

Middle school geography standards decline in quality as history begins to dominate. Content knowledge is mostly concentrated in Fundamentals—e.g., a solid emphasis on locating places on maps. Places and Regions and Human Systems are covered through an emphasis on the physical and human characteristics of the places whose history is being studied. Human Systems focus on migration and settlement. Physical Systems receive no attention. Environment and Society is barely touched upon. Skills do better but Applications, where higher order thinking is required, receive no emphasis. Organization is based on chronology. Score: 12.5 of 24

High school standards de-emphasize geography, presenting it as a minimal element of tenth grade World History, Culture and Geography and eleventh grade US History and Geography courses. Fundamentals, Places and Regions and Environment and Society are partially covered; Humans Systems fare better. Skills and Applications receive some attention. Organization has nothing to do with geography. Score: 11.5 of 24

Score for Comprehensiveness and Rigor: 37.5 of 72

Final Score: 50.5 of 90

COLORADO

Summary: Colorado receives an A with a top score of 90. Hats off to Colorado for setting the U.S. standard for geography standards. The state's effort has yielded a result that is a pleasure to read. Standards and benchmarks are crisp, thoughtful, and complete. They bring geography alive for curriculum developers, teachers, parents, and students. Indeed, evaluators believe that Colorado's standards are a dramatic improvement on the national standards in clarity and organization. They provide a user-friendly presentation of geography as an important and compelling field of study.

Geography in the Curriculum: Geography is integrated into the K-6 social studies curriculum and is often taught in grade seven. Some geography is taught in grade nine and increasingly in grades ten through twelve (likely in response to the University of Colorado-Boulder's geography entry requirement). Local districts are free to develop their own standards as long as they "meet or exceed" the state standards.

Standards Presentation: Colorado presents geography in six *primary* standards directing that students: "(1) Know how to use and construct maps, globes and other geographic tools to locate and derive information about people, places and environments; (2) Know the physical and human characteristics of places and use this knowledge to define and study regions and their patterns of change; (3) Understand how physical processes shape Earth's surface patterns and systems; (4) Understand how economic, political, cultural and social processes interact to shape patterns of human populations, interdependence, cooperation and conflict; (5) Understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution and importance of resources; and (6) Apply knowledge of people, places and environments to understand the past and present and to plan for the future."

Six primary standards are elaborated in 18 second-level standards, each illuminated and further detailed by benchmarks.

A separate section of the document addresses model benchmarks and provides suggested activities through which students can demonstrate mastery. These are grouped in clusters (K-1, 2-3, 4-5, 6, 7, 8, 9-10, and 11-12) to help curriculum developers and teachers know precisely what content knowledge should be presented to students, and when. This section also includes developmental profiles (what students are deemed capable of doing in geography as they progress through school).

The standards end with a section on Skills and Perspectives clustered K-4, 5-8, and 9-12 largely derived from *Geography for Life* and *Guidelines for Geographic Education*. Throughout the standards, geographic terms are footnoted and a useful glossary is provided.

- **Model:** Colorado used *Geography for Life* and the *Geography Framework* of the 1994 National Assessment of Educational Progress to help develop its standards' themes and key ideas.
- ***Grade clusters:*** Six general standards appear in K-4, 5-8, and 9-12 grade clusters. These are explicated by 18 secondary standards. Each of these secondary standards is illuminated by benchmarks organized in K-4, 5-8, and 9-12 grade level clusters. In addition, a section on model benchmarks "offer examples of how each of the six standards can be woven into the curriculum at various grade levels."

STATE REPORT CARD

Colorado

GENERAL CHARACTERISTICS	**18.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	24.0
Grades 5 – 8	24.0
Grades 9 – 12	24.0
TOTAL SCORE (out of 90)	**90.0**
GRADE	**A**

Mapping Out a Standards-Based Framework for GEOGRAPHY. The Colorado Geographic Curriculum Framework. Colorado Department of Education, 1995.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Colorado's standards excel in clarity of writing. (score: 3)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards incorporate benchmarks. (score: 3)
- Standards offer guidance for teachers. Colorado's standards publication includes a video tape presentation about standards, an illuminating introduction, and chapters on redesigning curriculum, instruction, and assessment using the standards, professional development, and new resources available to teachers. (score: 3)

Score: 18 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary, middle school, and high school: Colorado's standards achieve the maximum scores in all categories at all grade-level clusters. They are consistently deep and rich, demanding and realistic. There is a nice emphasis on learning the vocabulary of geography as well as on developing a spatial perspective throughout the clusters. Standards are well organized, progressing from simple to complex in concepts, and from acquiring basic information to synthesizing and applying what is learned.

Score for Comprehensiveness and Rigor: 72 of 72

Final Score: 90 of 90

Colorado receives an A with a top score of 90. Hats off the Colorado for setting the U.S. standard for geography standards.

CONNECTICUT

Summary: Connecticut receives an F with a score of 49. Very little evidence exists as to where geography fits into each grade level and exactly what students need to know. Performance standards miss the vocabulary and concepts associated with building a student's capacity to see patterns in the distribution of physical and human features. They are thin in the knowledge, skills, and analytical practices associated with mastery of geography's spatial perspective, the heart of the discipline. As a result, these standards are less than compelling.

Standards are strongest in the elementary grades. They make a sound showing in basic knowledge of maps, globes, and place location, do a good job in covering Physical Systems, and are adequate in coverage of Human Systems, particularly in grades K-4. Expectations are less clear in middle grades and in high school.

Evaluators were puzzled by a seeming mismatch between the title of Connecticut's content standard 12, Human and Environment Interaction, and the content knowledge presented within it. We found good coverage of basic map skills and location geography within this standard, but almost no mention of the knowledge associated with human and environmental interaction.

Geography in the Curriculum: Connecticut mandates geography's inclusion in the program of instruction for public schools. However, state officials were unable to provide information as to where geography typically appears in the K-12 curriculum.

Standards Presentation: Geography is a strand in the state's draft social studies Framework. There are four geography performance standards: "9. Places and Regions: Students will use spatial perspective . . . to identify and analyze the significance of physical and cultural characteristics of places and world regions; 10. Physical Systems: . . . explain the physical processes that shape the Earth's surface and its ecosystems; 11. Human Systems: . . . interpret spatial patterns of human migration, economic activities, and political units in Connecticut, the nation and the world; and 12. Human and Environment Interaction: . . . use geographic tools and technology to explain the interactions of humans and the larger environment, and the evolving consequences of those interactions."

- **Model:** Standards relate to the national standards, *Geography for Life*, and to *Curriculum Standards for Social Studies: Expectations of Excellence*.
- **Grade clusters:** Performance standards are presented in K-4, 5-8, and 9-12 grade level clusters.

Connecticut

GENERAL CHARACTERISTICS	11.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	15.0
Grades 5 – 8	13.0
Grades 9 – 12	10.0
TOTAL SCORE (out of 90)	49.0
GRADE	F

Social Studies Curriculum Framework (Second Draft). Connecticut State Department of Education, August 7, 1997; and Grade 6, K-12 Program Development in Social Studies, Free Draft April 18, 1997). The standards were adopted with minimal changes in November of 1997.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are often clearly written and jargon-free. (score: 2)
- Standards are often specific regarding knowledge and skills (see Summary). (score: 2)
- Standards are often balanced but there is no mention of how the environment can endanger people via hurricanes, floods, volcanic activity, etc. (score: 2)
- Standards employ strong verbs. (score: 3)
- Standards sometimes incorporate benchmarks. Performance standards could be conceived as actual benchmarks but they are too broad to be truly measurable. (score 1)
- Standards sometimes provide guidance for teachers. Performance standards may be somewhat helpful to teachers as they attempt to explicate the standards. (score: 1)

Score: 11 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards are weak in introducing vocabulary and concepts of spatial analysis. They fare better with human and natural characteristics of places, and excel in Physical Systems, a welcome characteristic in a usually ignored aspect of geography. Human Systems score high as well, covering the area thoroughly. Scores fall, however, as standards fail to deal with environmental modification, the way physical systems affect human systems, and various aspects of resources. Skills and Applications are nearly invisible. Overall organization is clear, but categories are misleading, particularly the one relating to Human and Environment Interaction. Score: 15 of 24

Middle school standards continue to be shaky in vocabulary and concepts regarding spatial analysis. Emphasis on Physical Systems declines and material on Human Systems is very general. Human/Environment Interaction continues its emphasis on basic map and globe knowledge! Applications of geography are not mentioned. Score: 13 of 24

High school standards receive low scores except in the area of Physical Systems. For the most part the standards are broadly stated, such as "describe the consequences of human population patterns and growth trends over time" and "use maps, globes, charts and databases to analyze and suggest solutions to real-world problems." They are neither comprehensive nor rigorous. Score: 10 of 24

Score for Comprehensiveness and Rigor: 38 of 72

Final Score: 49 of 90

DELAWARE*

Summary: Delaware receives an F with a score of 42.2. These standards and Student Expectations (benchmarks) address geography's key concepts (Maps, Environment, Places, and Regions), but suffer from lack of specificity. Mastery of fundamentals and key content areas is implied, but not specified. As a result, the standards lack a coherent progression of knowledge and skills.

Sample activities intended to amplify the standards for curriculum developers and teachers are often demanding, but frequently ambiguously phrased: "Students might be expected to . . . ," "Students could . . . ," etc. Stronger samples would help add specificity.

Frequent inclusion of "connection boxes" that highlight linkages to related standards in other disciplines is an attractive feature of the standards. These should help curriculum developers and teachers better integrate geography instruction with relevant material presented in other subjects.

Delaware is currently developing grade-by-grade performance indicators targeted for promulgation in late 1998. These will guide social studies assessments as students leave grades three, five, eight, and eleven. The performance indicators and assessments are expected to add needed specificity to Delaware's standards.

Delaware

GENERAL CHARACTERISTICS	11.6
COMPREHENSIVENESS & RIGOR	
Grades K – 4	9.1
Grades 5 – 8	8.8
Grades 9 – 12	12.7
TOTAL SCORE (out of 90)	42.2
GRADE	F

State Directions: State of Delaware Social Studies Curriculum Framework. Department of Public Instruction, June 1995; also Volume Two: Classroom Performance Models, August 1995.

Geography in the Curriculum: Geography teaching is widely varied. It is traditionally taught in grade seven but some districts pick it up in fifth grade as part of a U.S. History course. Some schools offer geography in high school, often in tenth grade, but it is usually an elective.

Standards Presentation: Disciplines in Delaware's social studies Framework each have four standards. In geography, "(1) Students will develop a personal geographic framework, or "mental map," and understand the uses of maps and other geo-graphics (MAPS); (2) Students will develop a knowledge of the ways humans modify and respond to the natural environment (ENVIRONMENT); (3) Students will develop an understanding of the diversity of human culture and the unique nature of places (PLACES); (4) Students will develop an understanding of the character and use of regions and the connections between and among them (REGIONS)."

Each standard is followed by a brief explanatory statement that amplifies the standard's intent, and grade-clustered statements of Specific Expectations for student performance. The standards are accompanied by sample activities. A companion volume, *Classroom Performance Models*, contains sample assessment activities.

- ***Model:*** The state's standards relate to the national standards, *Geography for Life*.
- ***Grade clusters:*** Standards are presented in grade level clusters of K-3, 4-5, 6-8, and 9-12.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are only sometimes specific regarding knowledge and skills. There is not enough specificity to warrant a higher score.(score: 1)
- Standards are balanced. (score: 3)
- Standards often employ strong verbs that reflect expectations of performance. (score: 2)
- Standards sometimes incorporate benchmarks but most are too broad to be used for assessment. (score: 1)
- Standards sometimes offer guidance to teachers through presentation of sample activities and the use of connection boxes. (score: 1.6)

Score: 11.6 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content:* The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards introduce an overall understanding of maps, globes, and mental maps; weather, climate, vegetation, and topography; human-environmental interaction; places and settlement patterns; and regions. However, the treatment of these content areas is too broad to provide a coherent progression of knowledge and skills. Score: 9.1 of 24

Middle school standards are similarly broad and lacking in coherent presentation of content. Substantial mastery of concepts, specific knowledge, and skills is implied, but the ground work leading to these competencies is not specified. Score: 8.8 of 24

High school standards are slightly stronger. Students are expected to master concepts and vocabulary associated with spatial analysis and to apply this knowledge. As in earlier grades, standards are so broadly stated that local curriculum developers and teachers have little guidance regarding what should be taught and when. Score: 12.7 of 24

Score for Comprehensiveness and Rigor: 30.6

Final score: 42.2 of 90

** Delaware is the only state to have been scored by three evaluators. Primary evaluators disagreed about the state's standards and therefore asked a member of the project advisory committee to evaluate Delaware's standards independently. As a result, Delaware's score reflects an average of three evaluators' scores.*

DISTRICT of COLUMBIA

Summary: D.C. receives a C with a score of 61.5. Standards are comprehensive and solid regarding content knowledge and geography's spatial perspective. Students must acquire this knowledge to understand concepts and models and also to describe and analyze patterns of spatial organization. Students are required to create and use mental maps and also to use field observation in comparing physical and human characteristics of places. Middle grades standards are particularly comprehensive and demanding.

A consistent shortcoming of the standards is their lack of emphasis on applying geographic knowledge. Benchmarks are uneven in specificity throughout the document. All in all, these standards look good at this early stage of development.

STATE REPORT CARD

District of Columbia

GENERAL CHARACTERISTICS	**14.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	13.5
Grades 5 – 8	17.5
Grades 9 – 12	16.0
TOTAL SCORE (out of 90)	**61.5**
GRADE	**C**

"Geography Content Standards: District of Columbia Public Schools" (May 1996, Working Draft. Standards have not been adopted.)

Geography in the Curriculum: Geography is taught in fourth grade (U.S. Geography); seventh grade (Geography of the Western Hemisphere); and ninth grade (World Geography).

Standards Presentation: Standards have three goals: "To Think Geographically Using the Fundamental Themes and Skills of Geography (Location, Place, Human/Environment Interactions, Movement, and Regions); To Use Geography to Gather, Process and Present Geographic Information; and To Use Geographic Tools to Understand the World."

Five standards are presented: The World in Spatial Terms; Places and Regions; Physical Systems; Human Systems; and Environment and Society. These are followed by excellent explanations of each standard and by grade-specific benchmarks.

- **Model:** The draft standards are modeled on the national standards and on *Guidelines for Geographic Education*.
- **Grade clusters:** Standards are designed to evaluate students at the end of grades three, five, eight, and eleven.

General Characteristics

This category measures six characteristics possessed by high quality standards on a four-point scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills but benchmarks show uneven amounts of detail among the grade levels. For example, Grade 3 Standard 2 asks students to "describe their own community." This request is open-ended. But Grade 5 Standard 4 asks students to "describe the physical and human processes in shaping the landscape in Washington, D.C. . . ." providing useful detail. (score: 2)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards often incorporate benchmarks but they do not always show measurability. Some do not explain how a student can demonstrate particular knowledge. (score: 2.5)
- Standards sometimes offer guidance to teachers. But the draft reviewed does not include any supplemental material that could help educators in their efforts to teach geography. (score: 1)

Score: 14.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary school standards provide good coverage of Fundamentals, Places and Regions, and Human Systems. Environment and Society and Physical Systems receive middling scores. There is almost no emphasis on Skills and Applications. Score: 13.5 of 24

Middle school standards receive higher scores. Human Systems and Skills receive thorough coverage. Fundamentals, Places and Regions, Physical Systems, and Environment and Society score almost as well, but Applications are not strong. Score: 17.5 of 24

High school standards place strong emphasis on Physical Systems, Places and Regions, Human Systems, Environment and Society, and Skills fare nearly as well. Little emphasis is given to requiring students to apply what they have learned, and higher order thinking is seldom required. Score: 16 of 24

Score for Comprehensiveness and Rigor: 47 of 72

Final score: 61.5 of 90

FLORIDA

Summary: Florida receives a C with a score of 65. The state has done a commendable job of including geography's essential knowledge, skills, and applications in only two standards. Throughout its standards, geography learning focuses on identification of patterns and spatial analysis. Fundamentals, including map and globe skills, receive good attention. Benchmarks are concise and straightforward, and sample performance descriptions—included to illustrate student mastery—are very strong and bring the standards and benchmarks to life. The state would have scored higher in this evaluation if those sample performance activities had been selectively incorporated into benchmarks.

The standards do not address geography's Physical Systems category, an area essential to a complete treatment of the discipline. This content knowledge appears instead in the state's science standards.

Florida

GENERAL CHARACTERISTICS	15.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	17.0
Grades 5 – 8	15.5
Grades 9 – 12	17.5
TOTAL SCORE (out of 90)	65.0
GRADE	C

Florida's Sunshine Framework – Social Studies – PreK-12 Standards, State Standards and Instructional Practices. Florida Department of State, 1996.

Geography in the Curriculum: Florida's local districts and schools have wide discretion in all curricular decisions. Geography is typically integrated within the social studies PreK through grade five. Its place in grades six through twelve is determined by local districts and schools.

Standards Presentation: Geography is one of four disciplinary strands in Florida's social studies framework. The subject is presented within two broad standards: "(1) The student understands the world in spatial terms; and (2) The student understands the interactions of people and the physical environment."

Benchmarks specify learner expectations at the end of PreK-2, 3-5, 6-8, and 9-12 grade level clusters. These are further illuminated by sample performance descriptions.

- **Model:** Florida's standards are based on *Geography for Life*. Developers also drew upon the 1994 NAEP Geography Framework, *Guidelines for Geographic Education* and *K-6 Geography: Themes, Key Ideas, and Learning Opportunities*.
- **Grade clusters:** The standards are presented in four grade clusters: PreK-2, 3-5, 6-8, and 9-12.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills. Benchmarks can be somewhat open-ended. (score: 2)
- Standards are balanced. (score: 3)
- Standards often employ verbs that reflect performance expectations. Benchmarks suffer from the words "uses," "knows," and "understands." Stronger verbs appear in Sample Performance Descriptions. (score: 2)
- Standards often incorporate benchmarks which add specificity, but are not always measurable. (score: 2)
- Standards themselves often offer guidance to teachers as they are compelling and well-thought through. Florida incorporates considerable printed background material regarding the teaching of social studies, curricular connections, and assessment. Additional assistance to teachers is offered on-line. (score: 3)

Score: 15 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Early grades concentrate on Places and Regions, particularly their physical and human characteristics; Human Systems (including population, resources, communications, and transportation); and Environment and Society. Some Skills (in addition to map skills) and Applications appear in Sample Performance Descriptions. Score: 17 of 24

Middle school: Use of mental maps and mapping technologies appear in grades 6-8 as does an emphasis on distribution, migration, and social, political and economic divisions. Consequences and responses to environmental changes and the interaction between physical and human systems also receive attention. Score: 15.5 of 24

High school students are expected to know how to use geographic tools and technologies; how cultural and technological characteristics can link or divide regions; characteristics, distribution, and migration of human populations and their impact on physical and human systems; and processes, patterns, and functions of human settlement. They are expected to apply an understanding of how interaction between physical and human systems affects current conditions on Earth. Skills regarding asking and answering geographic questions come into play at this level. Score: 17.5 of 24

Score for Comprehensiveness and Rigor: 50 of 72

Final Score: 65 of 90

GEORGIA

Summary: Georgia receives an F with a score of 35.5. The state's geography standards, adopted in late November 1997, are disappointing. Content standards for the elementary grades do not provide a solid introduction to the subject. Map use is addressed, but this area is weak. Middle grades fare slightly better owing to a grade six and seven curriculum emphasis on Geography and World Cultures. There are no geography content standards at fifth grade, however. The middle grade standards emphasize knowing the geography of places and regions under study, not building student knowledge and skills in the discipline.

Geography standards for high school students are articulated for an elective World Geography course. These are inadequate. High school students are expected, for example, to "define absolute and relative location and to differentiate between them"—elementary level work.

STATE REPORT CARD

Georgia

GENERAL CHARACTERISTICS	**12.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	6.0
Grades 5 – 8	11.0
Grades 9 – 12	6.5
TOTAL SCORE (out of 90)	**35.5**
GRADE	**F**

Georgia's Quality Core Curriculum: Social Studies K-12. Georgia State Board of Education, 1997.

Geography in the Curriculum: Geography is integrated into the K-4 social studies curriculum and emphasized in grades seven and eight. A high school course in World Geography is an elective.

Standards Presentation: Georgia's Content Standards present geography as a separate strand on a grade-by-grade basis throughout the K-8 curriculum (except for grade five). These standards are essentially a list of grade level benchmarks.

- **Model:** While the standards' architecture reflects a history/social science model, the state's choice of content does not relate to any current models for organizing geography's essential knowledge and skills.
- ***Grade clusters:*** Standards are arrayed grade-by-grade for grades K-8 (except 5) and for the optional high school World Geography course.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are jargon-free but often not clearly written. (score: 2)
- Standards are often specific regarding knowledge and skills but frequently combine several elements in one statement. (score: 2)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards incorporate benchmarks. Essentially the standards are benchmarks but, as many of them address multiple learning objectives, they are often not very specific. (score: 2)
- Standards offer no guidance to teachers. (score: 0)

Score: 12 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards fall short of establishing a basic grasp of geography's fundamentals. Students are introduced to maps and globes, some physical geography, and Regions. No area of the discipline receives more than cursory treatment. Score: 6 of 24

Middle school standards improve slightly, but still fail to provide students with the discipline's essential content knowledge and skills. The emphasis shifts to identifying and locating regions under study on a map, but does not build geography skills or expect students to apply what they have learned. Score: 11 of 24

High school standards are weak. Such standards as there are at this level are associated with an elective World Geography course. These are neither demanding nor rigorous. Score: 6.5 of 24

Score for Comprehensiveness and Rigor: 23.5 of 74

Final Score: 35.5 of 90

HAWAII

Summary: Hawaii receives an Incomplete. Geography standards are being revised in the context of a comprehensive revision of the state's social studies standards. Hawaii's standards have been in flux since 1995. In that year, the state Department of Education promulgated "essential content" for the social studies. As embedded in Hawaii's social studies framework, this material is neither comprehensive nor rigorous in its treatment of geography.

Subsequently, the state legislature created a Hawaii State Commission on Performance Standards to develop content and performance standards. These were promulgated for a trial period to determine their acceptance by schools.

Currently, both "essential content" and the Hawaii Content and Performance Standards are being revised. The process will reportedly draw upon national model standards. No drafts were available for this evaluation.

Score: Incomplete

IDAHO

Summary: Idaho receives a C with a score of 62.5. The state's standards are in transition. The 1994 *K-12 Social Studies Content Guide and Framework* has been supplemented for grades K-6 with a new *Skills Based Scope and Sequence Guide*. The Department of Public Instruction has been directed by the State Board of Education to curtail efforts to develop a grade 7-12 companion guide, pending adoption of new high school exit requirements. According to state officials, the board has allowed itself three years in which to complete exit requirements, thus delaying further standards development until 2000.

The new *Skills Based Scope and Sequence Guide* markedly strengthens the state's treatment of geography, adding specificity, comprehensiveness, and rigor to the relatively weak early and middle grade standards contained in the K-12 framework. However, the *Framework* does a competent job of integrating geography standards into a mandatory high school course in U.S. History, and presents a very good set of standards for an elective high school geography course.

The weakest area throughout the standards is Physical Systems which receive only modest attention even in the new K-6 *Guide*.

STATE REPORT CARD

Idaho

GENERAL CHARACTERISTICS	**12.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	**18.0**
Grades 5 – 8	**15.0**
Grades 9 – 12	**17.5**
TOTAL SCORE (out of 90)	**62.5**
GRADE	**C**

Idaho K-12 Social Studies Content Guide and Framework. State Department of Education, 1994 and Skills Based Scope and Sequence Guide: Social Studies K-6: Target Skills & Sample Assessment Methods. Office of State Superintendent of Public Instruction, 1997.

Geography in the Curriculum: State officials are unable to provide information about a typical social studies scope and sequence in Idaho's schools. State curriculum frameworks and standards are "advisory" insofar as local school districts are concerned.

Standards Presentation: Geography standards that appear in the *Skills Based Scope and Sequence Guide* are labeled "Geography and World Connections." Geography also appears in a Peoples and Societies category. There are no general standards headings for geography. Performance indicators are articulated as Target Skills. The *Guide* does not include benchmarks, but the Target Skills are quite specific and are accompanied by Sample Assessment Methods that offer teachers additional guidance.

The older *K-12 Social Studies Content Guide and Framework* presents geography thematically under People, Place, and Environment and other themes in middle grades with short, broad, and very general goal statements that begin "social studies programs should include . . ." and are amplified by Performance Objectives. In high school, geography is again presented thematically, and standards are integrated into high school U.S. History. They are specific regarding the elective geography course.

- **Model:** Idaho's standards are drawn from both the *Guidelines for Geographic Education* and from the national standards.
- **Grade clusters:** Target Skills are presented grade-by-grade for grades K-6 in the new guide. Middle grade and high school standards are not grade specific in the older *Framework*, but Performance Objectives and Sample Progress Indicators are arrayed beneath each goal in this volume.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are often clearly written (the older *K-12 Framework* is weaker in this respect) and jargon-free. (score: 2)
- Standards are specific regarding knowledge and skills in K-6 and for the high school elective course but less so in middle grades. (score: 2)
- Standards are often balanced but somewhat value-laden in the older volume. (score: 2)
- Standards employ strong verbs. (score: 3)
- Standards do not incorporate separate benchmarks, but Target Skills are specific in themselves in the *Guide*. This is not true of the *Framework*. (score: 2)
- Standards sometimes offer guidance to teachers. There is little help for teachers in the *Guide* other than the specificity of the Target Skills and Sample Assessment Methods. The *Framework* contains Sample Progress Indicators which could be somewhat useful. (score: 1)

Score: 12 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary (K-6) standards are Idaho's strongest cluster. Skills are emphasized and are done well. The content areas score relatively well. Score: 18 of 24

Middle school (7-8) standards suffer from the weakness of the 1994 *Framework* which is arranged by social studies themes such as Culture; People, Place and Environment; etc. There are no standards for geography *per se*, but evaluators mined the various performance objectives for scoring purposes. Score: 15 of 24

High school performance objectives are strong for the elective high school geography course. This indicates that the course should be relatively comprehensive and rigorous. But, as the course also uses social studies themes, the spatial nature of geography is diluted, resulting in loss of coherence. Score: 17.5 of 24

Score for Comprehensiveness and Rigor: 50.5

Final Score: 62.5 of 90

ILLINOIS

Summary: Illinois receives a D with a score of 51.5. Illinois' Geography Goal and four Learning Standards are straightforward and represent a substantially deeper commitment to geography than was reflected in the state's 1985 goals. But the new material is not comprehensive. Of four geography standards, one relates specifically to history. Some concepts and topics are either missing or presented so nebulously as to leave evaluators scratching their heads as to what is wanted from students, e.g., "describe how physical and human processes shape spatial patterns including erosion, agriculture, and settlement" (B. — Late Elementary).

Benchmarks, intended to bring specificity to the standards, are all over the map. They are strongest at the elementary level. But at higher levels, evaluators were often lost in their breadth, open-endedness, and/or lack of clarity. So confusingly are they presented that we were occasionally unable even to identify the knowledge or skill being addressed. We believe that curriculum developers and teachers will find the state's standards somewhat useful in setting direction, but they will have to work hard to organize a coherent curriculum from them.

Illinois

GENERAL CHARACTERISTICS	11.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	15.5
Grades 5 – 8	11.5
Grades 9 – 12	13.5
TOTAL SCORE (out of 90)	51.5
GRADE	D

Illinois Learning Standards, Illinois State Board of Education, July 23, 1997

Geography in the Curriculum: Evaluators were unable to determine where and when geography is taught in Illinois schools.

Standards Presentation: Standards fall under Goal 17 in the Social Science section of the *Illinois Learning Standards*: Understand world geography and the effects of geography on society, with an emphasis on the United States.

Four Learning Standards address this goal: "A. Locate, describe and explain places, regions and features on the Earth; B. Analyze and explain characteristics and interactions of the Earth's physical systems; C. Understand relationships between geographic factors and society; and D. Understand the historical significance of geography."

- **Model:** Illinois standards generally relate to *Geography for Life*, the national standards.
- **Grade clusters:** Standards are presented in five clusters: Early Elementary, Late Elementary, Middle/Junior High School, Early High School, and Late High School. Actual grade levels are purposely omitted "to allow schools flexibility in how they structure their education programs." Benchmarks are included within each cluster.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are seldom clearly written but are jargon-free. (score: 1)
- Standards are often specific. (score 2)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards often incorporate benchmarks, but these are few and open-ended. (score: 1)
- Standards sometimes offer guidance to teachers. But not much. There is nothing to help teachers except the two standards pages. A short glossary for the entire 127-page document includes just three geography terms: "mental maps," "plate tectonics," and "spatial awareness." (score: 1)

Score: 11 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards show little evidence of the vocabulary and skills of spatial analysis. Places receive some attention but Region fares less well. There is some attention to Physical Systems and Human Systems (including population, settlement, migration, and patterns and networks of economic interdependence), and there is some emphasis on Environment and Society. Skills are dealt with minimally. There is clear continuity between early and late elementary concepts. Score: 15.5 of 24

Middle school students must use maps, but there is no requirement for them to make them. Fundamentals are barely mentioned. Concepts regarding Places and Regions are minimal. Physical Systems and Human Systems get more attention, but coverage is spotty. This is also true of Environment and Society. Skills of geographic analysis come into play at this level, but Applications receive scant attention. Score: 11.5 of 24

High school standards require students to use mental maps, and there is more attention to analysis of settlement patterns and processes of diffusion. Physical Systems and Human Systems again receive higher scores. But there is almost no material regarding Places and Regions. Environment and Society concepts are scant. Those Skills and Applications that are mentioned assume that students at this level know a considerable amount of geography, but evaluators are not clear as to when it might have been taught or learned. Score: 13.5 of 24

Score for Comprehensiveness and Rigor: 40.5

Final score: 51.5 of 90

INDIANA

Summary: Indiana receives an A with a score of 85. Geography standards are comprehensive and rigorous in grades K-8 and are reinforced and extended in grades 9-12.

Evaluators were impressed with Indiana's choices of sample student activities that illuminate the standards. Though only examples, their clarity and focus lead us to believe that each has been teacher-tested in classroom settings. Evaluators commend Indiana's sample activities to social studies and geography teachers as a powerful set of instructional ideas.

Geography in the Curriculum: Geography is taught throughout social studies in Indiana schools. A World Geography course is offered as a high school elective.

Standards Presentation: Geography is presented as a separate strand (Geographic Relationships) throughout the K-8 social studies curriculum. The goal of the strand is to ensure that students will ". . . understand and describe the geographical patterns and interrelationships of the major physical and cultural features on earth's surface." Standards are illuminated by grade-by-grade Proficiency Statements and Indicators (benchmarks).

- **Model:** Standards use *Geography for Life*, the national standards, as a model.
- **Grade clusters:** Standards are presented grade by grade, K-12.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are often balanced. (score: 2.5)
- Standards employ strong verbs (score: 3)
- Standards incorporate benchmarks. (score: 3)
- Standards offer guidance to teachers. (score: 3)

Score: 17.5 of 18

STATE REPORT CARD

Indiana

GENERAL CHARACTERISTICS	17.5
COMPREHENSIVENESS & RIGOR	
Grades K – 4	22.5
Grades 5 – 8	22.0
Grades 9 – 12	23.0
TOTAL SCORE (out of 90)	85.0
GRADE	A

The Social Studies Proficiency Guide: An Aid to Curriculum Development, 1996 Edition, Indiana Department of Education, 1996.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary, middle school, and high school standards: Indiana scores high in all three clusters. Standards are thorough, demanding, and clearly organized throughout. Fundamentals receive excellent coverage in all grades as do Places and Regions, Human Systems, Skills, and Applications. Physical Systems and Environment and Society receive slightly lower scores. In high school, standards for an elective World Geography course are complete and rigorous.

Elementary school score: 22.5 of 24
Middle school score: 22 of 24
High school score: 23 of 24

Score for Comprehensiveness and Rigor: 67.5 of 72

Final score: 85 of 90

IOWA

Summary: Iowa receives an Incomplete. As a matter of policy, Iowa has determined not to adopt state standards for any disciplines. Local districts are required to develop their own academic standards. The state offers technical assistance to the local adoption process.

Score: Incomplete

KANSAS

Summary: Kansas receives a D with a score of 56. The state's standards are competent as far as they go, but coverage is shallow in such key areas as spatial analysis, regions, and physical systems.

Powerful specific illustrations of what is expected of students are presented as Examples of Method for Instruction. Evaluators found excellent material in these examples, and would have scored Kansas higher had some of these activities been included as benchmarks.

As is often the case when geography standards are fully integrated into a social studies framework, they are weak in their treatment of physical systems. And at all levels, students are expected to focus on land use, but are not introduced to the physical systems that shape the land in the first place. Map skills are well presented.

Kansas standards employ an interesting approach to the application of knowledge and skills, expecting students at 5th, 8th, and 12th grades to identify issues and take and defend positions drawing on the perspectives, knowledge, and skills of each of the social studies disciplines—including geography.

Geography in the Curriculum: Geography's place in the Kansas curriculum is not specified by the state. It is not a required subject. However, the state has assessed social studies at grades five, eight, and eleven since 1990, and geography content and skills are included in the assessment. Further, Kansas bases its school accreditation program in part upon student performance on the standards-based assessment.

Standards Presentation: Kansas's standards are presented in a somewhat confusing social studies format. Standards architecture begins at the broadest level with Program Outcomes, beneath which are clustered Key Concepts/Ideas. Standards and benchmarks are presented within each Key Concept/Idea.

Geography content standards and benchmarks are labeled as People, Places, and Environments, and Worldwide Connections and Interdependence. Benchmarks are detailed and specific. Examples of Methods of Instruction add even more specificity and illustrate how a student can show mastery.

Skills and applications for the social studies, including geography, are presented separately under Key Concept/Ideas labeled Problem Solving and Decision Making.

- ***Model:*** While the organization and presentation of Kansas's standards reflects the National Council for the Social Studies' *Expectation for Excellence*, content and skills are drawn from *Geography for Life* and the *Guidelines for Geographic Education*.
- ***Grade clusters:*** Kansas standards are organized in three clusters, unusually labeled 12-K, 8-K, and 5-K. No other state clusters in this manner.

STATE REPORT CARD

Kansas

GENERAL CHARACTERISTICS	14.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	15.0
Grades 5 – 8	13.0
Grades 9 – 12	14.0
TOTAL SCORE (out of 90)	56.0
GRADE	D

Kansas Curricular Standards for Social Studies. Kansas State Board of Education: 1996. (Amended and reprinted, 1997)

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free, although their organization and presentation are confusing. (score: 2)
- Standards are often specific regarding student knowledge and skills, but in some cases are very broad and combine multiple learning outcomes. (score: 2)
- Standards are generally balanced. (score: 2.5)
- Standards often employ strong verbs. (score: 2.5)
- Standards often incorporate benchmarks. The standards and benchmarks are rigorous as far as they go, but not particularly comprehensive.(score: 2.5)
- Standards offer some guidance to teachers in the form of Examples of Methods of Instruction. (score: 2.5)

Score: 14

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards score highest in Fundamentals followed by good scores in Places and Regions, Environment and Society, Skills, and Applications. Physical Systems and Human Systems receive lower scores. Score: 15 of 18

Middle school standards receive slightly lower scores overall. Fundamentals receive less attention than in earlier grades. This is also true of Places and Regions, Physical Systems, Human Systems, and Skills. Only Environment and Society and Applications receive good scores. Score: 13 of 18

High school standards score well in Physical Systems, Human Systems, Skills, and Applications. Fundamentals, Places and Regions, and Environment and Society receive less emphasis. Score: 14 of 18

Score for Comprehensiveness and Rigor: 42 of 72

Final score: 56 of 90

KENTUCKY

Kentucky receives an F with a score of 23. Standards-setting is in flux. Kentucky's *Curriculum Framework*, 1991, and *Program of Studies for Kentucky Schools Grades K-12*, 1986, are dated and muddled. Nothing in these documents offers a coherent or comprehensive approach to geography standards.

The most recent materials, dated 8/26/97 and 9/16/97, contain a preliminary draft proposal for a revised state social studies program designed to replace the 1986 *Program of Studies*. It did not contain enough information for us to perform a meaningful evaluation.

"Core Content for Social Studies Assessment," Version 1.0, 1994, to be implemented in 1998, provided the basis for this evaluation.

STATE REPORT CARD

Kentucky

GENERAL CHARACTERISTICS	**4.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	6.0
Grades 5 – 8	7.0
Grades 9 – 12	9.0
TOTAL SCORE (out of 90)	**26.0**
GRADE	**F**

"Core Content for Social Studies Assessment," Version 1.0, 1994 (to be implemented in 1998)

Summary: This is a spare and very broad document intended to provide a basis for assessment of geography learning. To the extent that the assessment tool may drive instruction, Kentucky students are expected to master some content and skills.

Geography in the Curriculum: Geography is integrated throughout K-12 social studies. World Geography is taught at sixth grade. A new graduation requirement for geography is to be implemented in 1998.

Core Content for Assessment Presentation: Geography's Academic Expectation 2.9 states: "Students recognize and understand the relationship between people and geography and apply their knowledge to real-life situations." There are four general areas of assessment for geography across the grade levels: "1. Patterns on the Earth's surface can be identified by examining where things are, how they are arranged, and why they are in a particular location; 2. The Earth is vastly complex with each place on its surface having human and physical characteristics; to deal with this complexity people create regions; 3. Patterns emerge as humans move, settle and interact on Earth's surface; and 4. Human actions modify the physical environment and, in turn, the physical environment limits or promotes human activities."

Grade-specific statements fall within these categories.

- **Model:** *Guidelines for Geographic Education*
- ***Grade clusters:*** Assessment is to take place at the end of grades five, eight, and eleven.

General Characteristics

This category measures six characteristics possessed by high quality standards (assessments) using a scale of 0-3.

- Assessments are sometimes clearly written and jargon-free. (score: 1)
- Assessments are sometimes specific regarding knowledge and skills. (score: 1)
- Assessments are often balanced. (score: 2)
- Assessments virtually never employ strong verbs. (score: 0)
- Assessments do not incorporate benchmarks. (score: 0)
- Assessments do not offer guidance to teachers. (score: 0)

Score: 4 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: The assessment emphasizes Fundamentals and Environment and Society. Places and Regions, Human Systems, Skills, and Applications are weaker. Score: 6 of 24

Middle school: Human Systems and Environment and Society receive some attention. Other areas are weaker. Score: 7 of 24

High school: Emphasis in high school is placed on Environment and Society. Other areas receive even lower scores. Score: 9 of 24

Score for Comprehensiveness and Rigor: 22 of 72

Final Score: 26 of 90

LOUISIANA

Summary: Louisiana receives a C with a score of 67.5. The state has done a solid job on its geography standards, mining the national standards for their most salient information. But they don't seem tailored to the state. There is no mention of the geography of Louisiana, for example. When Places and Regions are discussed, evaluators found themselves asking "What places? What regions?" As a result, the state standards lack texture and context.

Geography in the Curriculum: The state has recently moved from a highly prescriptive, state-mandated scope and sequence curriculum to a standards-based process, including social studies assessment at grades four, eight, and eleven.

Standards Presentation: The geography strand in the social studies content standards, Geography: Physical and Cultural Systems, includes four standards: "A. The World in Spatial Terms, B. Places and Regions, C. Physical and Human Systems, and D. Environment and Society." Specific benchmarks are listed for each of the three grade clusters.

- **Model:** Louisiana uses *Geography for Life*, the national standards, for its model.
- **Grade clusters:** The standards appear in K-4, 5-8, and 9-12 grade clusters.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards incorporate benchmarks. (score: 3)
- Standards sometimes offer guidance to teachers. Nothing included in evaluators' copy of the standards is designed to help teachers other than the benchmarks themselves, which are specific regarding what students must know and do. (score: 1)

Score: 16 of 18

STATE REPORT CARD

Louisiana

GENERAL CHARACTERISTICS	16.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	15.0
Grades 5 – 8	18.5
Grades 9 – 12	18.0
TOTAL SCORE (out of 90)	67.5
GRADE	C

Louisiana Social Studies Content Standards: State Standards for Curriculum Development, Louisiana State Department of Education, May 1997

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards place considerable emphasis on map and globe skills, physical and human characteristics of places, Human Systems, and Environment and Society. What is missing is the language and skills of spatial analysis—the vocabulary of geography. There is little introductory material regarding components and processes, for example. Thus, standards in these grades seem to assume that students will know preliminary material that is not referenced in the standards themselves. Score: 15 of 24

Middle school standards are strong in Places and Regions, Human Systems, and Environment and Society as well as Skills. But, like earlier grades, they are weak on tools and concepts of spatial analysis. They also appear deficient in Physical Systems. Score: 18.5 of 24

High school standards are relatively strong in most content areas but particularly good in Skills and Applications. Students are asked to perform demanding exercises such as develop "plans to solve local and regional geographic problems related to contemporary issues" and analyze "the relationship between natural resources and the exploration, colonization, settlement, and uses of land of different regions of the world." Score: 18 of 24

Total for Comprehensiveness and Rigor: 51.5 of 72

Final score: 67.5 of 90

MAINE

Summary: Maine receives an F with a score of 30.5. Its low total reflects the fact that the state's standards lack comprehensiveness. They are too few and too thin to cover geography's content knowledge and skills. On the plus side, the standards address basic map skills reasonably well, introduce the concept of regions, and touch briefly on human and environmental interaction, migration, and culture.

Evaluators also found some geography content in Maine's economics and history standards, but there is simply too little geography overall to justify a higher score for the state. Maine, like several other states, addresses Physical Systems in its science standards.

Geography in the Curriculum: Geography is taught as part of social studies. Student achievement of *Learning Results* will be measured by the Maine Education Assessment. Fourth and eighth graders will be assessed beginning in 1998-99. Eleventh graders will be assessed in 1999-00.

Standards Presentation: Geography is a separate strand within Maine's social studies standards. Two standards are presented: "A. Skills and Tools—Students will know how to construct and interpret maps and use globes and other geographic tools to locate and derive information about people, places, regions, and environments; and B. Human Interaction With Environments—Students will understand and analyze the relationships among people and their physical environments."

Performance Indicators "demonstrate attainment of the content standards," and are grouped in four grade clusters. Sample activities for students follow some of the Performance Indicators.

- **Model:** The standards' content is so sparse that it is not possible to determine which, if any, national models were used as references.
- ***Grade clusters:*** The standards are presented as PreK-2, 3-4, 5-8, 9-12.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills (score: 2.5)
- Standards are balanced. (score: 3)
- Standards often employ strong verbs. (score: 2.5)
- Standards often incorporate benchmarks. (score: 2.5)
- Standards do not offer guidance to teachers as they are so sparse. (score: 0.5).

Score: 14 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards are very thin. Map and globe skills are introduced, but not in depth. Places and Regions, Physical Systems, and Human Systems receive little attention. Coverage of Environment and Society is minimal even though the category is specified as a content area. Skills and Applications score zero. Coherent organization of the standards is not evident. Score: 7 of 24

Middle school standards score lower than elementary. Evaluators gave low totals in every category. Score: 5 of 24

High school scores on a par with middle school. There is simply too little material, and what there is is stated in such general terms that it provides little guidance to curriculum developers, teachers, or parents. Score: 4.5 of 24

Score for Comprehensiveness and Rigor: 16.5

Final Score: 30.5 of 90

STATE REPORT CARD

Maine

GENERAL CHARACTERISTICS	**14.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	**7.0**
Grades 5 – 8	**5.0**
Grades 9 – 12	**4.5**
TOTAL SCORE (out of 90)	**30.5**
GRADE	**F**

State of Maine Learning Results. Maine Department of Education. Adopted by legislature as law, May 1997.

MARYLAND

Summary: Maryland receives an F with a score of 27. Maryland's *Social Studies Outcomes and Indicators* are weak in geography content and skills. The *High School Core Learning Goals*, which present geography in the context of Government, U.S. History, and World History courses, are even weaker. Taken together, these standards are insufficiently comprehensive, specific, or rigorous to ensure that students will master geography's fundamentals, much less more complex concepts.

Geography in the Curriculum: The subject is integrated into K-8 social studies with a course in World Geography often taught in grade seven. Some districts offer a high school elective in U.S. Geography. The state is readying itself for a high school assessment in U.S. History, World History, and Government. Geography learning, a strand within these courses, will be part of the assessment.

STATE REPORT CARD

Maryland

GENERAL CHARACTERISTICS	**10.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	6.0
Grades 5 – 8	7.0
Grades 9 – 12	4.0
TOTAL SCORE (out of 90)	**27.0**
GRADE	**F**

Maryland High School Core Learning Goals, 1997 and K-8 Social Studies Outcomes and Indicators (1997 Draft Revisions), Maryland State Department of Education

Standards Presentation: Geography occurs as Outcome 3: Students will demonstrate an understanding of geographic concepts and processes as needed to examine the role of culture, technology, and the environment in the location and distribution of human activities.

- **Model:** *Geography for Life*, the national standards, is used as a model.
- ***Grade clusters:*** K-3, 4-5, 6-8, 9-12

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills. (score: 2)
- Standards are often balanced. (score: 2)
- Standards sometimes employ strong verbs. (score: 1)
- Standards often incorporate benchmarks. (score: 2)
- Standards offer no guidance to teachers. (score: 0)

Score: 10 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards score poorly throughout the evaluation. No category receives a score higher than 1. This is particularly worrying in Maryland's case, as the standards are presented as the basis for the state's school performance assessment program. Score: 6 of 24

Middle school standards address Places and Regions reasonably well. All other areas score 1 or zero. As above, the standards are supposed to serve as the basis for statewide assessment. Score: 7 of 24

High school standards address Human Systems adequately. Environment and Society scores 1, and all other categories score zeros—essential material is not covered. Score: 4 of 24

Score for Comprehensiveness and Rigor: 17 of 72

Final score: 27 of 90

MASSACHUSETTS

Summary: Massachusetts receives a D with a score of 50. Consistent with a history/social science model, Massachusetts places geography in a supporting role throughout its standards. Students are challenged to learn some geography to amplify their study of history, but, beyond knowing locations, are given few of the specific skills and concepts that would enable them to utilize it fully, even in a supporting role.

Standards and benchmarks are very broad and inclusive regarding location knowledge and the impact of geography upon historic events, but students are not required to master the tools and skills of spatial analysis. While good attention is paid to using and making maps, standards are quite weak in higher order Skills and Applications.

Moreover, there is a discomforting mismatch between specificity and generality in the Learning Standard Components. In Learning Standard 8, PreK-4 students "learn and locate Massachusetts' major cities. Name and locate the states and major cities of the United States." In grades 9-10, they "consider historical and contemporary world events using evidence from maps, globes, and other geographic data." Early grade components are much more specific than those in later grades. Finally, there is no particular logic to the selection of many of the Components.

Geography in the Curriculum: The state's scope and sequence emphasize the geography of nations and regions that are the focus of historical study. Geography is included as a separate strand and on a grade-by-grade basis from Pre-K through grade 10 in social studies.

Standards Presentation: Four geography standards are presented: "(1) Physical Spaces of Earth; (2) Places and Regions of the World; (3) The Effects of Geography; and (4) Human Alteration of the Environment." Learning Standard Components (Core Knowledge and Skills) serve as benchmarks. Example activities are presented for each standard.

- **Model:** The standards follow a history/social science model. *Geography for Life*, the national standards, is also considered.
- ***Grade clusters:*** Standards are presented as PreK-4, 5-8, 9-10, and 11-12.

STATE REPORT CARD

Massachusetts

GENERAL CHARACTERISTICS	**14.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	12.0
Grades 5 – 8	12.5
Grades 9 – 12	11.5
TOTAL SCORE (out of 90)	**50.0**
GRADE	**D**

History and Social Science Curriculum Framework. The Commonwealth of Massachusetts Department of Education, June, 1997.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific. (score: 2)
- Standards are balanced. (score: 3)
- Standards and benchmarks often employ strong verbs, but also use less actionable terms such as "learn," "consider," and "understand." (score: 2)
- Standards often incorporate benchmarks, but these are often broad and contain several activities. (score: 2)
- Standards often offer guidance for teachers, but substantially less for geography than for history. (score: 2)

Score: 14 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Fundamentals of geography receive some attention. Other content areas score lower. Skills receive some emphasis—students are asked to prepare maps to present geographic information regarding areas under study. Score: 12 of 24

Middle school: Environment and Society scores highest, followed by Fundamentals and Human Systems. Places and Regions and Physical Systems receive low scores. Skills and Applications score slightly higher. Score: 12.5 of 24

High school: Scores decline because learning components become vague and generalized. All areas receive middling to low scores. Score: 11.5 of 24

Score for Comprehensiveness and Rigor: 36 of 72

Final Score: 50 of 90

MICHIGAN

Summary: Michigan receives a B with a score of 79. Evaluators found Michigan's standards vital and compelling. They reflect a thoughtful approach that synthesizes key elements of geography's content, skills, and perspectives, melding them into a standards presentation that is also tailored to Michigan's overall curriculum. The standards reflect a strong emphasis on place location, use of regions as a basis of geographic analysis, and, particularly at the high school level, applications of geography skills and spatial perspectives to enhance students' understanding of contemporary world events.

Evaluators were impressed by Michigan's emphasis on requiring students to "locate and describe" places and events throughout its standards. Michigan's coverage of physical systems in geography standards is enhanced by equally strong coverage of physical processes in the state's science standards.

STATE REPORT CARD

Michigan

GENERAL CHARACTERISTICS	**17.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	**21.0**
Grades 5 – 8	**21.0**
Grades 9 – 12	**19.5**
TOTAL SCORE (out of 90)	**79.0**
GRADE	**B**

Michigan Curriculum Framework. Michigan Department of Education, 1996.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are often balanced. (score: 2.5)
- Standards employ strong verbs. (score: 3)
- Standards incorporate extremely measurable (draft) benchmarks that are currently being evaluated at school demonstration sites. (score: 3)
- Standards offer excellent guidance to teachers by including model vignettes to illustrate how teachers might incorporate standards-based teaching into their classrooms. Resources also include assessment prototypes, a poster to help develop local curricula, and sample geography units developed by teachers. (score: 3)

Score: 17.5 of 18

Geography in the Curriculum: Traditionally, geography has appeared most prominently in the social studies at grades four, five, six, and seven with a World Geography course offered as an option in high school.

Standards Presentation: The "Geographic Perspective" appears as Strand II in Michigan's Content Standards and Working Draft Benchmarks. It contains five standards: "1. All students will describe, compare, and explain the locations and characteristics of places, cultures, and settlements. (People, Places, and Cultures); 2. All students will describe, compare, and explain the locations and characteristics of ecosystems, resources, human adaptation, environmental impact, and the interrelationships among them. (Humans/Environment Interaction); 3. All students will describe, compare, and explain the locations and characteristics of economic activities, trade, political activities, migration, information flow, and the interrelationships among them. (Location, Movement, Connections); 4. All students will describe and compare characteristics of ecosystems, states, regions, countries, major world regions, and patterns and explain the processes that created them. (Regions, Patterns, and Processes) and 5. All students will describe and explain the causes, consequences, and geographic context of major global issues and events. (Global Issues and Events)."

A separate section, Strand V: Inquiry, addresses geography's Skills and Applications, along with those of history, civics, and economics.

Draft Working Benchmarks are still being evaluated by standards developers.

- **Model:** Michigan used both the *Guidelines for Geographic Education* and the national standards as models.
- **Grade clusters:** Standards are presented in four clusters: early elementary, late elementary, middle school and high school.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: The Fundamentals of Geography are strong. Places and Regions receive good attention as do Human Systems and Environment and Society. Skills and Applications are impressive at this early level. Score: 21 of 24

Middle school: Emphasis on Fundamentals decreases in middle grades, but standards regarding Places and Regions, Human Systems, and Environment and Society are demanding and complete. Skills and Applications are good. Score: 21 of 24

High school: Fundamentals get short shrift but Places and Regions receive serious attention as do Human Systems, particularly regarding economic interdependence and cooperation and conflict. There is nice emphasis on social, political, and economic spaces on Earth. Environment and Society receive high scores as do Skills and Applications. The standards are well organized throughout. Score: 19.5 of 24

Score for Comprehensiveness and Rigor: 61.5 of 72

Final score: 79 of 90

MINNESOTA

Summary: Minnesota receives an F with a score of 22. Geography content and skills are addressed throughout the standards, but coverage is spotty, incomplete, and hard to find. Development of skills is weak and applications are minimal, even at the high school level. In elementary and middle grades, Minnesota's standards are insufficiently comprehensive or too incoherent to provide students with a firm grasp of the discipline. An elective high school course in Human Geography adds a bit more depth, but it is not comprehensive or particularly rigorous. Students who do not choose this course will have only rudimentary exposure to the discipline upon graduation.

Geography in the Curriculum: Curricular scope and sequence are determined district-by-district. Primary grades (K-3) usually employ the social studies "expanding horizons" model. In intermediate grades (4-5), geography may be included in the study of historical events. Middle grades (6-8) may analyze current issues, study geography and culture, and review history and citizenship. In grades 9-12, geography may be woven into two required courses: Themes of U.S. History and Diverse Perspectives. Human Geography is offered as one of three social studies electives.

Standards Presentation: The presentation of Minnesota's standards makes them difficult to evaluate. Geography content and skills, such as they are, are found under the heading People and Cultures in the K-3, 4-5, and 6-8 grade clusters; under the subheading Family, School, and Community in K-3; Geography and Citizenship in 4-5; and Geography and Culture in 6-8. Additional coverage is found within the high school courses, Human Geography, Earth and Space Systems, and Environmental Systems. These courses are electives, however, and in the latter two courses, content is presented as science rather than geography.

- **Model:** The use of national models is not apparent.
- **Grade clusters:** primary (K-3), intermediate (4-5), middle school (6-8), and high school (9-12)

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are often clearly written and jargon-free. (score: 2)
- Standards are sometimes specific regarding knowledge and skills. (score: 1)
- Standards are often balanced. (score: 2)
- Standards often employ strong verbs. (score: 2)
- Standards sometimes incorporate benchmarks. (score: 1)
- Standards sometimes offer guidance to teachers. The presentation format makes these standards difficult to penetrate and we suspect teachers will have difficulty determining what they should teach and when they should teach it.(score: 1)

Score: 9 of 18

STATE REPORT CARD

Minnesota

GENERAL CHARACTERISTICS	9.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	5.0
Grades 5 – 8	5.0
Grades 9 – 12	3.0
TOTAL SCORE (out of 90)	22.0
GRADE	F

The Profile of Learning Preparatory Standards (Primary, Intermediate, Middle, High School Levels). Minnesota Department of Children, Families, and Learning. April 1997.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards offer a cursory introduction to places, maps and mental maps, and to the concepts of regions and human impact upon the environment. Expectations are minimal and incomplete. Physical systems receive no attention. Score: 5 of 24

Middle grade standards address regions in additional depth, and continue to stress mental maps. At 6-8, students are asked to apply their knowledge of regions and mental maps to the analysis of a historic or current issue or conflict. No other content is addressed. Score: 5 of 24

High school standards briefly address location knowledge, physical and cultural characteristics of places, an understanding of physical processes, movement, connections, and human impact on the environment. Students are expected to demonstrate map skills and to engage in limited analysis of local issues from a geographic perspective. Expectations are not comprehensive or rigorous. Score: 3 of 24

Score for Comprehensiveness and Rigor: 13

Final Score: 22 of 90

MISSISSIPPI

Summary: Mississippi receives an F with a score of 46. Standards are confusingly presented and lack a coherent progression of geography learning. They are often repetitive rather than building on previous learning. In early grades, geography standards focus on knowing where places are and using maps to locate them. There is little effort to introduce students to a spatial perspective.

Sometimes geography seems to have been wedged into the Competencies and Suggested Objectives in order to get it mentioned. For example, a kindergarten objective regarding responsible citizenship asks students to "discover the relationships among people, places and environments (e.g., the importance of following rules)." This is not an isolated example. Many competencies and objectives are labeled geography, but do not focus explicitly on the discipline.

STATE REPORT CARD

Mississippi

GENERAL CHARACTERISTICS	**11.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	8.5
Grades 5 – 8	10.0
Grades 9 – 12	16.0
TOTAL SCORE (out of 90)	**46.0**
GRADE	**F**

Mississippi Social Studies Framework." First Draft. Fall 1995. Mississippi Department of Education. Standards have not been adopted.

Geography in the Curriculum: Geography is found in grade-four Mississippi Studies, grade-five U.S. Studies, grade-six Western Hemisphere Studies, grade-seven Eastern Hemisphere Studies and grade-eight U.S. History to 1877. Students in grade nine may choose Mississippi Studies/Geography or Geography/Economics. Students in eleventh grade may choose Geography/Economics. Courses in World Geography and Advanced World Geography are offered in some high schools. Among Mississippi's 152 school districts, 137 offer specific geography courses in high school.

Standards Presentation: Mississippi's presentation is confounding. Geography is one of four named strands (together with civics, history, and economics) within the "Mississippi Social Studies Framework." But geography content is actually integrated into broadly stated social studies Competencies that often address material from the other disciplines as well. Suggested Objectives and Suggested Teaching Strategies provide added detail, but are not required.

A short list of so-called benchmarks is presented separately in the document. While Competencies are presented on a grade-by-grade basis, the benchmarks, described as "broad social studies goals," are presented in grade level clusters K-4, 5-8, and 9-12. They have the feel of generalized standards while Competencies look more like benchmarks. As a result, it is difficult to pinpoint exactly what geography students are expected to know and when they are expected to know it.

- **Model:** The state uses *Guidelines for Geographic Education* as its primary model.
- ***Grade clusters:*** The Framework is explicated grade-by-grade and, in high school, course-by-course. Benchmarks are set for grades four, eight, and twelve. There are four elementary benchmarks, six middle grade benchmarks and six high school benchmarks presented for all of the social studies.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are sometimes clearly written and jargon-free. (score: 1.5)
- Standards are rarely specific regarding knowledge and skills. (score: 1)
- Standards are often balanced. (score: 2.5)
- Standards often employ strong verbs. (score: 2)
- Standards incorporate benchmarks. (score: 3)
- Standards sometimes offer guidance to teachers. (score: 1.5)

Score: 11.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content:* The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Early years stress the Fundamentals and Skills regarding maps. Attention to other content areas is minimal. Score: 8.5 of 24

Middle school: Fundamentals continue to receive most emphasis. There is new attention to Human Systems. All other areas score low. Score: 10 of 24

High school: Suggested Teaching Strategies in World Geography stress skills and are replete with map exercises. Standards for Introduction to World Geography are complete, but not particularly rigorous. They concentrate on material students should have learned in earlier grades.

Content knowledge and skills presented in World Geography and Advanced World Geography are quite strong. Advanced World Geography uses *Geography for Life*, the national standards, as a model. Its competencies and suggested objectives are quite broad. Score: 16 of 24

Score for Comprehensiveness and Rigor: 34.5 of 72

Final score: 46 of 90

MISSOURI

Summary: Missouri receives a C with a score of 67. Packaged within a cumbersome social studies wrapper, Missouri's geography standards do a good overall job of capturing the discipline's essential knowledge, skills, and perspectives.

The standards present something of a challenge as Missouri chooses to organize them around four broad "fundamental" social studies questions that do not create a clear basis for presenting geography content. Furthermore, the standards themselves are presented as questions.

This unusual presentation notwithstanding, the standards do a credible job of establishing what students should know in key geography content-areas, and a very good job of requiring students to use geography Skills and Applications.

The geography standards are somewhat value-laden, particularly in areas of land use, public decision-making, and the environment.

As in many states, Missouri includes "sample activities" to illuminate the standards. These are excellent and evaluators wish Missouri had included many of these samples within the benchmarks themselves so they could have contributed to a higher overall score for the state. Evaluators were favorably impressed with Missouri's emphasis on students gathering geographic information in the field, an area often overlooked in state standards.

Geography in the Curriculum: Geography is incorporated throughout the K-12 curriculum.

Standards Presentation: The architecture of Missouri's standards is complicated. It begins with a set of 33 performance (process) and 40 knowledge (content) standards statutorily adopted and labeled collectively as Missouri's SHOW-ME standards. The SHOW-ME standard for geography states, ". . . Students . . . will acquire a solid foundation that includes a knowledge of the major elements of geographical study and analysis (such as location, place, movement, and regions) and their relationships to changes in society and environment."

Standards are detailed via seven *Frameworks for Curriculum Development*. Geography standards are contained in the *Social Studies Framework* which itself is organized into five disciplinary "perspectives" (civic-political, social-cultural, historical, economic, geographic) on four "fundamental questions": "1. Why have people established government systems? 2. How do individuals relate to and interact with groups? 3. How do events in this and other places relate to us and to each other? 4. How do the lives of individuals and conditions in society affect each other?"

The standards are then arrayed in the form of guiding questions (benchmarks) that address what students should know, statements that address what students should be able to do, and sample learning activities.

- **Model:** Standards incorporate ideas from the national standards, *Geography for Life*, and from *Guidelines for Geographic Education. Directions in Geography: A Guide for Teachers* is also referenced.
- ***Grade clusters*:** Standards occur in K-4, 5-8, and 9-12 clusters.

Missouri

GENERAL CHARACTERISTICS	14.5
COMPREHENSIVENESS & RIGOR	
Grades K – 4	18.5
Grades 5 – 8	17.0
Grades 9 – 12	17.0
TOTAL SCORE (out of 90)	67.0
GRADE	C

Framework for Curriculum Development in Social Studies K-12. Missouri Department of Elementary and Secondary Education, 1996.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free, their cumbersome presentation notwithstanding. (score: 3)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are sometimes balanced. (score: 1)
- Standards employ strong verbs. (score: 3)
- Standards sometimes incorporate benchmarks. (score: 1.5)
- Standards offer guidance to teachers in geography as well as in other social sciences through sample learning activities. A glossary includes some geographic terms. (score: 3)

Score: 14.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Missouri's standards are strongest in the elementary grades. Fundamentals would receive a higher score if sample activities appeared in the benchmarks. Places and Regions receive considerable emphasis as do Human Systems and Skills. Physical Systems and content regarding the Environment score slightly lower. Score: 18.5 of 24

Middle school standards de-emphasize Fundamentals; Places and Regions are mostly covered but Physical Systems are again weak. Human Systems lose strength. Content regarding Environment and Society improves. Skills and Applications are strong. Standards at this level move away from the spatial to the civic. Score: 17 of 24

High school standards put lesser emphasis on Fundamentals, Places and Regions, Physical Systems, Human Systems, and Environment and Society in favor of an intense focus on Skills and Applications. Higher order thinking elements are superior. Score: 17 of 24

Score for Comprehensiveness and Rigor: 52.5 of 72

Final Score: 67 of 90

MONTANA

Summary: Montana receives an Incomplete. The state is developing content and performance standards as part of a comprehensive school improvement program. Standards for reading, mathematics, science, and health are under development, and are expected to be available in late 1998. Social studies standards, including geography, are scheduled to follow.

Meanwhile, Montana's *Model Learner Goals* are offered as curriculum guides to local districts. By law, Montana's districts must offer geography as part of their social studies program. They are not, however, required to adopt or even utilize the *Model Learner Goals* in developing their curriculum. The *Model Learner Goals* are far from comprehensive, and are not considered standards for purposes of this evaluation.

Montana's 1993 *Social Studies Model Curriculum Guide* presents Model Learner Goals posed as "broad focus" questions organized within ten themes. Geography is treated under the theme Space, Place, and Movement. These "broad focus" questions are not considered standards for purposes of this evaluation.

Final Score: Incomplete

NEBRASKA

Summary: Nebraska receives an Incomplete. The state's first statewide standards in mathematics, science, reading/writing, and history/social sciences are under development. No geography standards were available for this evaluation.

Score: Incomplete

NEVADA

Summary: Nevada receives an Incomplete. Standards for all disciplines are under development by a legislatively mandated State Standards Council. The Council is required to develop standards for science, English/language arts, and mathematics by September, 1998, and for social studies and other areas by September, 1999. Meanwhile, local districts in Nevada are encouraged to develop their own standards, and some are doing so.

Score: Incomplete

NEW HAMPSHIRE

Summary: New Hampshire receives a B with a score of 76. Its standards cover geography's content, skills, perspectives, and applications very well, showing only a slight decline in comprehensiveness and rigor as they progress from early to later grades. It is a pleasure to see the Physical Systems category dealt with so thoroughly within the discipline of geography. These standards would receive a higher score but for one problem: grade level proficiency standards occur only at the end of grades six and ten. The breadth of this presentation makes it difficult for parents and educators to know when students should have mastered the standards.

New Hampshire

GENERAL CHARACTERISTICS	14.5
COMPREHENSIVENESS & RIGOR	
Grades K – 4	21.5
Grades 5 – 8	20.5
Grades 9 – 12	19.5
TOTAL SCORE (out of 90)	76.0
GRADE	B

K-12 Social Studies Curriculum Framework. New Hampshire Department of Education, August 1995

Geography in the Curriculum: New Hampshire school districts have wide latitude regarding scope and sequence. State officials indicate that the adoption of standards and the prospect of state assessment are resulting in a new emphasis on geography instruction throughout the state. Statewide assessment will occur at grades six and ten.

Standards Presentation: New Hampshire specifies six curriculum standards in Geography. Proficiency standards for grades six and ten are arrayed below each curriculum standard.

- **Model:** Standards clearly parallel the national standards, *Geography for Life*. Concepts and vocabulary also relate to the *Geography Framework for the 1994 National Assessment of Educational Progress*.
- **Grade clusters:** Proficiency standards occur at the end of grades 6 and 10.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are specific regarding knowledge and skills. If they were presented in narrower grade clusters, New Hampshire would have scored higher on this item. (score: 2)
- Standards are often balanced. Proficiency standards that address the environment only emphasize protecting it. There is little emphasis on natural hazards and how these can endanger people. (score: 2)
- Standards employ strong verbs. (score: 3)
- Standards sometimes incorporate benchmarks (see Summary). (score: 1.5)
- Standards offer guidance to teachers. Addenda to the standards that will offer detailed guidance to teachers are nearly complete, but were not available for evaluation. These addenda, developed by teachers, will include instructional resources, suggested activities, etc. The page listing K-12 Broad Goals for Social Studies Education is tightly focused and should be helpful for teachers. (score: 3)

Score: 14.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards receive highest scores in all five content areas. Skills and Applications score slightly less well. Organization does not achieve the maximum score due to the breadth of grade clusters. One is unable to determine what should be mastered by the end of grade four. Score: 21.5 of 24

Middle school standards fare slightly less well. There is decreased emphasis on Fundamentals, but Places and Regions, Physical Systems, and Human Systems again receive highest scores. Environment and Society, Skills, and Applications score slightly less well. Skills and Applications are sometimes implied rather than specified. Organization does not receive a top score for the reason noted above. Score: 20.5 of 24

High school standards decline slightly in Comprehensiveness and Rigor. Fundamentals and Places and Regions are mostly covered; Physical Systems score well as do Human Systems. Environment and Society, Skills, Applications, and Overall Organization are each down a point from optimal scores. Score: 19.5 of 24

Score for Comprehensiveness and Rigor: 61.5 of 72

Final Score: 76 of 90

NEW JERSEY

Summary: New Jersey receives an F with a score of 37. Standards are extremely general as are Cumulative Progress Indicators (benchmarks). For example, they ask students to "answer geographical questions regarding major physical and human characteristics" and "predict trends in world population numbers and patterns." Information regarding Physical Systems is non-existent in the standards although some appears in the state's science standards. Concepts regarding Environment and Society receive most attention throughout.

The standards and progress indicators are too broad to be considered comprehensive. Rigor is difficult to evaluate as some concepts usually presented in later grades appear in earlier ones. Though scores are not particularly good in early grades, they decline further in middle and upper grades. There are few indications as to how students can demonstrate what they have learned, particularly as concepts increase in complexity in the middle and upper grades.

Geography in the Curriculum: There are no specifics as to when or where geography teaching occurs. With standards in place, the state is now working on frameworks to guide implementation. Assessment in social studies is to begin in 1998.

Standards Presentation: New Jersey has three geography standards: "All students will acquire geographical understanding by studying (6.7) the world in spatial terms; (6.8) . . . human systems in geography; and (6.9) . . . the environment and society." Cumulative progress indicators follow each standard.

- **Model:** The standards use *Geography for Life* as a model.
- ***Grade clusters:*** Cumulative Progress Indicators occur at the end of grades four, eight, and twelve.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are sometimes specific regarding knowledge and skills, but more often they are too broad. (score: 1)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards sometimes incorporate benchmarks (performance indicators), but they do not contain enough detail to serve as a basis for state-wide assessment. (score: 1)
- Standards do not offer guidance to teachers. (score: 0)

Score: 11 of 18

STATE REPORT CARD

New Jersey

GENERAL CHARACTERISTICS	11.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	9.5
Grades 5 – 8	8.5
Grades 9 – 12	8.0
TOTAL SCORE (out of 90)	37.0
GRADE	F

Social Studies Content Standards. New Jersey Department of Education. May 1996.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Fundamentals are mostly covered. Places and Regions, Human Systems and Environment and Society are partially covered. Partial coverage of Human Systems and Environment and Society is surprising as these two content areas are explicit standards titles (standards 6.8 and 6.9). Skills and Applications fare poorly. As the standards and progress indicators are sparse, they receive low scores regarding organization and coherence. Score: 9.5 of 24

Middle school: A statement introducing middle and high school progress indicators states: "Building upon knowledge and skills gained in the preceding grades. . . ." This indicates that students should continue to improve upon what they have learned earlier. What is not apparent is how this is to be measured. Thus, in middle grades, specified emphasis on Fundamentals almost disappears. Places and Regions, a very important aspect of geography study, score low. Human Systems receive slight attention. Environment and Society are mostly covered. Skills and Applications receive partial coverage. Score: 8.5 of 24

High school: Fundamentals again score low as do Places and Regions and Human Systems. Environment and Society are mostly covered. Skills and Applications receive partial coverage. Score: 8 of 24

Score for Comprehensiveness and Rigor: 26 of 72

Final Score: 37 of 90

NEW MEXICO

Summary: New Mexico receives an F with a score of 41. Geography falls under a number of social studies topics which deal minimally with geography. Standards, such as they are, require little of teachers or students. They are neither comprehensive nor rigorous. Some of the state's weakness in coverage of Physical Systems, however, is made up by presenting this area in science standards.

Geography in the Curriculum: State legislation mandates that geography be integrated into the social studies curriculum in grades four through six. It is taught at grade seven along with New Mexico History, and in high school within U.S. and World History courses.

Standards Presentation: Social studies standards contain elements of geography in Standard 1, Unifying Concepts and Processes; Standard 4, Continuity and Change in Society; Standard 5, Individuals, Groups, and Institutions; Standards 11 and 12, both entitled People, Cultures, Places and Environments; and Standards 13 and 14, both entitled Global Connections and Technology. [1]

- ***Model:*** State standards most resemble *Curriculum Standards for Social Studies: Expectations of Excellence*
- ***Grade clusters:*** Standards appear in K-4, 5-8, and 9-12 clusters.

General Characteristic

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free but nebulous. (score: 2)
- Standards, what there is of them, are often specific regarding knowledge and skills. (score: 2)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards incorporate benchmarks but cover insufficient material. (score: 2)
- Standards sometimes offer guidance to teachers. (score: 1)

Score: 13 of 18

STATE REPORT CARD

New Mexico

GENERAL CHARACTERISTICS	**13.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	10.0
Grades 5 – 8	8.5
Grades 9 – 12	9.5
TOTAL SCORE (out of 90)	**41.0**
GRADE	**F**

Standards for Excellence—Social Studies Content Standards with Benchmarks for Kindergarten through 12th Grade. Winter, 1997. New Mexico State Department of Education.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Fundamentals receive a bit of attention. Students are asked to use maps and the tools of geography regarding basic spatial vocabulary. They are asked to know a smattering of content within Physical Systems and Human Systems. Environment and Society receive a little attention: how humans modify the environment, particularly regarding land use, and how places change over time. Score: 10 of 24

Middle school standards receive low scores. They touch upon making and using maps, understanding physical and human characteristics of places, the way physical processes shape patterns on Earth's surface, reasons for variations in population distribution, and issues regarding land use and resources. Skills and applications receive a little attention. Score: 8.5 of 24

High school standards are minimal. Students have to know the characteristics of maps and how to use mental maps; changing characteristics of places; information on cultures; and issues regarding conflict and cooperation. They are expected to have acquired some higher order thinking skills, but it is difficult to comprehend how they would have developed them, given the standards' thin coverage. Score: 9.5 of 24

Score for Comprehensiveness and Rigor: 28 of 72

Final Score: 41 of 90

NEW YORK*

Summary: New York receives an F with a score of 40. New York's standards presented a dilemma for evaluators. On one hand, the state's content standard, key ideas, and performance indicators for geography are stated in very broad and overarching terms that offer little specificity. On the other hand, sample tasks that illuminate and flesh out the aforementioned material are very detailed and contain all the components that would enable students to master the discipline. Indeed, the sample tasks are so challenging that they might serve as a basis for an Advanced Placement course in geography.

However, as in all states, sample tasks themselves cannot be counted in scoring standards using this evaluation methodology. Thus, New York scores poorly. New York's learning standards document indicates that it "should be considered a working document." If future revisions incorporate a number of the sample tasks into the performance indicators, the state's standards would score in the highest rank.

STATE REPORT CARD

New York

GENERAL CHARACTERISTICS	**13.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	**9.5**
Grades 5 – 8	**7.5**
Grades 9 – 12	**9.5**
TOTAL SCORE (out of 90)	**40.0**
GRADE	**F**

Learning Standards for Social Studies. The University of the State of New York/The State Education Department. Revised Edition, June 1996.

Geography in the Curriculum: Geography is integrated into K-11 social studies. There is no requirement for students to take a high school geography course.

Standards Presentation: Geography falls under Standard 3: "Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth's surface." This standard is then illuminated by two Key Ideas which state: "1. Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the uses of geography; and 2. Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing, and analyzing geographic information." The same Key Ideas apply to all three grade clusters.

- **Model:** *Geography for Life*, the national standards.
- ***Grade clusters:*** K-5 (Elementary), 6-8 (Intermediate), and 9-12 (Commencement).

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are sometimes specific regarding knowledge and skills. (score: 1)
- Standards are balanced. (score: 3)
- Standards nearly always employ strong verbs. (score: 3)
- Standards' benchmarks (performance indicators) are often too general to be assessable. (score: 1.5)
- Standards offer guidance to teachers in developing curriculum in the form of extremely challenging, even unrealistic sample tasks. These are likely to require a very high level of geography mastery on the part of New York's teachers. (score: 2)

Score: 13.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards introduce students to Fundamentals, Places and Regions, and Environment and Society. Skills and Applications are addressed, but in very general terms. Standards and benchmarks alone fall short of providing a solid base for higher level geography study and are very generally stated (e.g., "gather and organize geographic information from a variety of sources and display in a number of ways"). Sample tasks add dimension, but are not scored. Score: 9.5 of 24

Middle school (intermediate) standards introduce the concept of seeking and analyzing patterns and are a bit more specific than elementary standards. However, they focus on the same content areas as the elementary standards, and do not address key areas such as physical and human systems. Sample tasks are demanding but are not scored. Score: 7.5 of 24

High school (commencement) standards suffer from the same shortcomings of generality as do elementary and middle school standards. Yet the sample tasks at this level are comprehensive and very rigorous. Their addition to the standards would have placed New York in the highest rank in this evaluation. Score: 9.5 of 24

Score for Comprehensiveness and Rigor: 26.5 of 72

Final Score: 40 of 90

** In November, 1997, the New York State Department of Education released for review and comment a grade-by-grade social studies curriculum Resource Guide that amplifies the geography standards' content and skills expectations. The Guide adds detail and depth to the standards and provides grade-by-grade guidance for teachers, parents, and students. Evaluators did not have access to this material when New York's standards were judged. On the basis of an initial review of the new draft Guide, however, evaluators probably would have awarded the state a higher score had the material had been available at the time of our evaluation.*

NORTH CAROLINA

Summary: North Carolina receives a C with a score of 65. The state does a good job of integrating geography into its social studies curriculum. The state has clearly taken the standards process seriously and tried to develop a useful document which could serve as a guide to teachers and for assessment. The standards are strong in absolute and relative location, places and regions, and human/environment interaction. Unfortunately, Physical Systems are barely addressed save for weather, climate, and land forms. Standards tend to be short on vocabulary and skills associated with spatial analysis. While dealing with twelve goals and four skills may be difficult for teachers, grade level organization is good.

The standards are strongest in grades four through seven. There is emphasis on reinforcing map skills throughout all grades.

Geography in the Curriculum: Geography is taught throughout K-7 social studies. Fourth graders study cultural geography. In fifth grade, students take a regional approach to Geography of the Western Hemisphere. Europe and the former Soviet Union are the focus of sixth grade geography. In seventh grade, students study Africa and Asia. In eighth grade, they study the history of North Carolina which has a geography strand. There is no geography at ninth grade. At tenth grade, students may choose an elective World Geography course to fulfill a world studies requirement. (An estimated 25 percent of students elect geography.) The course is organized around *Guidelines for Geographic Education*'s Five Themes. Goals and objectives for other high school courses reinforce a geographic perspective and use of geographic tools, but do not emphasize the discipline.

Standards Presentation: North Carolina's standards are articulated as goals and objectives. Geography is clearly identified as a separate strand in the social studies *Framework*. Mastery of basic geography content and skills is emphasized in the goals and objectives presented throughout the K-7 scope and sequence. At 8th grade, students are expected to "assess the influence of geography on the economic, social, and political development of North Carolina" in a state history course. Benchmarks (objectives) are included.

- **Model:** The standards are organized around The Five Themes of Geography from *Guidelines for Geographic Education*.
- **Grade clusters:** Standards are presented grade by grade.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

North Carolina

GENERAL CHARACTERISTICS	**16.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	16.5
Grades 5 – 8	15.0
Grades 9 – 12	17.5
TOTAL SCORE (out of 90)	**65.0**
GRADE	**C**

Social Studies Standard Course of Study Framework and Teacher Handbook. State Board of Education/North Carolina Department of Public Instruction. 1997.

- Standards are clearly written and jargon-free; however, their format is a bit confusing. (score: 2.5)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are often balanced although there is much emphasis on environmental stewardship. (score: 2)
- Standards employ strong verbs. (score: 3)
- Standards incorporate benchmarks (objectives). (score: 3)
- Standards often offer good guidance to teachers. (score: 2.5)

Score: 16 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Grades K-3 do an excellent job of introducing absolute and relative location, maps and map skills, and concepts of movement, human/environmental interaction, places and regions. There is no emphasis on developing mental maps to help gain a geographic perspective. Developing a geographic vocabulary is not emphasized. Geography's skills and applications receive good attention. Score: 16.5 of 24

Middle school standards reinforce the concepts mentioned above and build upon them, using the study of Places and Regions as a focus. Standards for Physical Systems are not present, and Fundamentals do not score well. All other areas receive high scores. Skills and Applications are strong. Score: 15 of 24

High school standards for the World Geography elective are the most rigorous of all the grades. While fundamentals do not receive much attention, Places and Regions, Human Systems, Environment and Society, Skills, and Applications score well. Absence of attention to Physical Systems lowers the overall score. Score: 17.5 of 24

Score for Comprehensiveness and Rigor: 49 of 72

Final score: 65 of 90

NORTH DAKOTA

Summary: North Dakota receives an F with a score of 15. The state has one geography standard in its list of 14 social studies Content Outcomes: "The student applies the five themes of geography to social studies issues." So-called Benchmarks/Performance Standards, designed as exit outcomes, are too few, too generalized, and too vague to be considered standards for purposes of this evaluation. Taken together, these standards are insufficiently comprehensive, specific, or rigorous to provide students an opportunity to master even geography's fundamentals, much less more complex concepts.

Geography in the Curriculum: Geography is integrated into K-5 or -6 social studies and must be taught in junior high school. By tradition, the state has included geography as a part of high school U. S. History and World History. A law passed in 1989 now requires that geography be taught as part of these courses.

Standards Presentation: Geography is presented as social studies outcome 11: The student applies the Five Themes of geography to social studies issues.

- **Model:** *Guidelines for Geographic Education*
- ***Grade clusters:*** Benchmarks/Performance Standards appear as exit outcomes for grades four, eight, and twelve.

General Characteristics

This category measures six using a scale of 0-3.

- Standards are often clearly written and jargon-free. (score: 2)
- Standards are often specific regarding knowledge and skills. (score: 2)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards sometimes incorporate benchmarks. (score: 1)
- Standards do not offer guidance to teachers. (score: 0)

Score: 11 of 18

STATE REPORT CARD

North Dakota

GENERAL CHARACTERISTICS	**11.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	**4.0**
Grades 5 – 8	**0.0**
Grades 9 – 12	**0.0**
TOTAL SCORE (out of 90)	**15.0**
GRADE	**F**

North Dakota Curriculum Frameworks. North Dakota Department of Public Instruction, January 1993.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Fundamentals ask students to identify geographic features, but nothing else. Places and Regions do better with a score of 2. All other content areas score zero.
Score: 4 of 24

Middle school: Students are asked to identify and explain the importance of the geography's Five Themes to social studies issues. This is not a measurable standard.
Score: 0 of 24

High school: Students are asked to demonstrate the ability to comprehend the relationships among geographic location, contemporary issues, and historic events. And they are asked to use the Five Themes of geography as a foundation for geographic analysis. These are not standards by evaluators' definitions.
Score: 0 of 24

Score for Comprehensiveness and Rigor: 4

Final Score: 15 of 90

OHIO

Summary: Ohio receives a D with a score of 54. Ohio's standards are reasonably rigorous as far as they go. The state does an acceptable job of integrating geography into its "model social studies program," particularly in the elementary and middle grades. The standards (Instructional Objectives) include a very strong emphasis on map skills in the early grades, and stress the use of maps and other geographic tools throughout; but they often seem more like learning activities than concepts for student mastery. In high school grades, the emphasis shifts to using geography skills to interpret history and cultures and to applying geography to contemporary issues. Physical Systems receive minimal treatment, emphasizing only weather, climate, and vegetation.

STATE REPORT CARD

Ohio

GENERAL CHARACTERISTICS	**14.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	14.0
Grades 5 – 8	14.5
Grades 9 – 12	11.5
TOTAL SCORE (out of 90)	**54.0**
GRADE	**D**

Social Studies, Ohio's Model Competency Based Program, Ohio Department of Education, 1994

Geography in the Curriculum: Ohio's local districts have wide latitude regarding social studies scope and sequence; thus, information regarding geography's place in the curriculum is not available from state officials.

Standards Presentation: Geography knowledge and skills are found under two strands labeled "World Interactions" and "People in Societies."

- **Model:** Standards are drawn from diverse sources, but are most reliant on *Guidelines for Geographic Education*.
- ***Grade clusters:*** The state's standards (Instructional Objectives) are presented grade-by-grade, and include geography content and/or skills throughout.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills. (score: 2)
- Standards are often balanced. (score: 2)
- Standards employ strong verbs. (score: 3)
- Standards seldom incorporate benchmarks but the standards themselves are very specific and can be used as a basis for assessment. (score: 2)
- Standards often offer guidance to teachers, particularly regarding classroom assessment of the learning objectives. (score: 2)

Score: 14 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards place good emphasis on Fundamentals in the early grades followed by Places and Regions, but other content areas receive shorter shrift. Score: 14 of 24

Middle school standards regarding Fundamentals continue strong at this level. Places and Regions score well. Scores for Human Systems increase but Physical Systems and Environment and Society score low. There is some attention to Skills and Applications. Score: 14.5 of 24

High school standards' scores fall in content areas, but Skills and Applications score well. Students are not required to enhance their knowledge levels, but are expected to use what they have already learned through inquiry and by applying a spatial perspective. Score: 11.5 of 24

Score for Comprehensiveness and Rigor: 40 of 72

Final Score: 54 of 90

OKLAHOMA

Summary: Oklahoma receives an F with a score of 36. Standards are neither comprehensive nor rigorous. Indeed, they are thin and uninteresting, paying only lip service to the idea of standards-based education. No effort is made to engender geography's spatial perspective. Organization evidences little logical progression. Overall, standards resemble a spot check. Benchmarks are present but very general.

Geography in the Curriculum: Geography is integrated within grades 1-4 social studies. It gets its own course title in 5th grade, is a named part of 6-8 grade social studies (World Geography), and is offered as a course (World Geography) in a few high schools. Geography is not required for graduation. The state will perform criterion reference testing in grades 5, 8, and 11 in spring of 1998.

STATE REPORT CARD

Oklahoma

GENERAL CHARACTERISTICS	11.5
COMPREHENSIVENESS & RIGOR	
Grades K – 4	8.0
Grades 5 – 8	9.0
Grades 9 – 12	7.5
TOTAL SCORE (out of 90)	36.0
GRADE	F

A Core Curriculum for Our Children's Future: Priority Academic Student Skills for Social Studies, Oklahoma State Department of Education, March, 1997

Standards Presentation: Standards are designed to assist program development by schools. "They are not intended to describe in detail every concept that is to be learned." And they don't. The most geographic of four "Priority Academic Student Skills" asks students to "demonstrate a knowledge of the interrelationships among individuals and their environment in the state of Oklahoma, the United States and the world in the past, present, and future." The last word in that priority, given its context, is somewhat daunting, and reveals the general caliber of the standards.

Some geography appears in the standards for other disciplines, particularly history and economics.

- **Model:** Six geographers looked at Oklahoma's social studies standards and came to no agreement as to what national model may have been used to develop them.
- ***Grade clusters:*** Standards for geography appear in grades 1-4 elementary social studies, grade 5 geography, grades 6-8 World Geography, and grades 9-12 World Geography.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards, few as they are, are often clearly written and jargon-free. (score: 2.5)
- Standards are often specific regarding knowledge and skills. (score: 2)
- Standards are often balanced. (score: 2)
- Standards employ strong verbs. (score: 3)
- Standards often incorporate benchmarks although these are very general. (score: 2)
- Standards almost never offer guidance to teachers. (score: 0)

Score: 11.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards draw consistently low scores. The best score, a two, occurs in the area of Fundamentals (the World in Spatial Terms). Score: 8 of 24

Middle school content areas receive scores of one throughout. Skills score one-half point higher. Score: 9 of 24

High school standards often repeat those of earlier grades and receive consistently low scores. Score: 7.5 of 24

Score for Comprehensiveness and Rigor: 24.5 of 72

Final Score: 36 of 90

OREGON

Summary: Oregon receives an Incomplete. The state's standards are undergoing a comprehensive review. State officials indicate that a draft of revised standards will be available for public review and comment in January, 1998, too late for inclusion in this evaluation. The state plans a rigorous and comprehensive assessment keyed to the new standards when they are adopted. No geography standards were available for this evaluation.

Score: Incomplete

PENNSYLVANIA

Summary: Pennsylvania receives an Incomplete. Pennsylvania is in the process of adopting new standards and a standards-based assessment system for all disciplines. Standards have been adopted for reading, writing, mathematics, and science. Geography will be included in new social studies standards now in initial drafting stages and expected to be presented to the state board of education in late 1998.

Score: Incomplete

RHODE ISLAND

Summary: Rhode Island receives an Incomplete. The state is currently developing a guide for K-12 social studies. State officials report that a draft is scheduled for release in December, 1997, too late for inclusion in this report. Final approval is expected in Spring, 1998.

Score: Incomplete

SOUTH CAROLINA

Summary: South Carolina receives an Incomplete. The state's standards are being drafted. State officials anticipate releasing a draft for public review in early 1998. A target date for adoption is not set.

Score: Incomplete

SOUTH DAKOTA

Summary: South Dakota receives an Incomplete. Governor Bill Janklow has directed that state standards for social studies, language arts, science, and mathematics be recalled for comprehensive review and improvement. Standards developers are to enhance existing standards by making them more detailed and specific regarding what students should know and be able to do.

Mathematics and English/language arts revisions are scheduled for completion during the 1998 legislative session. Social studies and science are to be completed later in the spring. The Governor's goal is to complete development and promulgation of the new standards in time for the 1998-99 school year.

No geography standards will be available for evaluation until completion of the revision process.

Score: Incomplete

TENNESSEE

Summary: Tennessee receives an F with a score of 40. The state's standards are described as "minimum expectations" and, as such, are neither comprehensive nor rigorous. Benchmarks (Student Learnings) are vague and do not indicate how a student can show that he or she has learned particular material.

Geography in the Curriculum: Geography is taught within K-8 social studies which covers "history, government and civics, geography, economics and the behavioral sciences." In high school, World Geography is presented as a one-unit elective, an option for fulfilling a three-unit graduation requirement in social studies.

Standards Presentation: K-8 social studies contain two general geography standards regarding use of maps and globes. There is one standard focusing on major physical characteristics of places and regions, one standard regarding human characteristics of places and regions, and one focusing on the interaction between human and physical systems, for a total of five standards. Each is followed by grade cluster benchmarks.

In high school, the World Geography elective has six standards that closely resemble those presented in the national standards, *Geography for Life*.

- **Model:** The standards most clearly relate to the national standards. Elements of *Guidelines for Geographic Education* are also present.
- **Grade clusters:** Standards are presented in K-2, 3-5, 6-8, and 9-12 clusters.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are often clearly written and jargon free. (score: 2)
- Standards are only sometimes specific regarding knowledge and skills. (score: 1)
- Standards are often balanced. (score: 2.5)
- Standards often employ strong verbs. (score: 2)
- Standards employ benchmarks but these are not specific enough to provide measurable indicators of performance. (score: 1)
- Standards offer little guidance for teachers. (score: 1)

Score: 9.5 of 18

STATE REPORT CARD

Tennessee

GENERAL CHARACTERISTICS	**9.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	**10.5**
Grades 5 – 8	**9.5**
Grades 9 – 12	**10.5**
TOTAL SCORE (out of 90)	**40.0**
GRADE	**F**

K-12 Social Studies Curriculum Framework, May 1998. State of Tennessee Board of Education.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards require students to have a thorough exposure to geography's Fundamentals regarding maps and globes. Less attention is given to Places and Regions. Physical Systems receive no attention. There is minimal emphasis on Human Systems. Environment and Society fare better. Students are not asked to use skills or prove their ability to engage in higher order thinking. Some geography also shows up in history and economics standards. Score: 10.5 of 24

Middle school requirements regarding geography's Fundamentals nearly disappear in grades 6-8. There is minor attention paid to Places and Regions and Physical Systems. Human Systems and Environment and Society receive little focus. Skills and Applications both score zero. Standards lack coherence in their organization. Again, some geography appears in history and economics. Score: 9.5 of 24

High school's geography elective, World Geography, uses standards elements that closely resemble those contained in *Geography for Life*. But there the resemblance ends. Expectations are extremely broad, general, and unmeasurable. For example, one asks students to "understand geography as presented in the five geographic themes of location, place, relationships with places, movement, and region." Using the Five Themes to embrace all of geography in one benchmark is a daunting notion. Some geography appears in high school history standards but maps are not mentioned. Score: 10.5 of 24

Score for Comprehensiveness and Rigor: 30.5 of 72

Final Score: 40 of 90

TEXAS

Summary: Texas receives an A with a score of 80.5. The clarity of the geography requirements throughout the document, and their precision about geography as a defined discipline makes Texas standards stand out. Requirements for high school World Geography Studies are particularly strong.

Geography in the Curriculum: Geography is taught in K-6 social studies, in grade seven Texas History and in grade eight U.S. History and Geography. For high school graduation, college-bound students in the Advanced Program must take four units of social studies, one of which must be a year of World Geography. Regular graduation requirements include three units of social studies plus one unit of World Geography, World History, or Science. World Geography is usually taught in the 9th or 10th grade. In addition, some Texas schools offer honors courses, Pre-AP courses, and International Baccalaureate courses in geography.

Standards Presentation: Geography is presented as a named strand throughout the elementary and early middle grades. In grades 7-8, geography standards appear as a supporting strand in Texas and U.S. History courses. In high school, geography appears as a strand in U.S. History Studies since Reconstruction, World History Studies, Government and Sociology. The standards for the World Geography course are excellent; they ask as much of students as would a good college-level course.

A short (a) Introduction, at each grade level, or for a particular course, relates what is to be covered that year in a few paragraphs. Following each introduction, standards are spelled out, discipline-by-discipline, under (b) Knowledge and skills. This simple format continues throughout the standards. The number of discipline-based standards varies, grade-by-grade, as do the number of items regarding what a student is expected to do.

- **Model:** The standards use *Geography for Life* and *Guidelines for Geographic Education* as models.
- **Grade clusters:** Geography appears as a distinct strand within the social studies standards at every grade level within K-5, 6-8, and 9-12 clusters.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are specific regarding knowledge and skills. (score: 3)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards incorporate benchmarks that are often measurable. (score: 2)
- Standards offer guidance to teachers through the standards' own specificity. The document reviewed does not contain any resource materials or sample activities that can assist teachers. (score: 2)

Score: 16 of 18

STATE REPORT CARD

Texas

GENERAL CHARACTERISTICS	16.0
COMPREHENSIVENESS & RIGOR	
Grades K – 4	18.5
Grades 5 – 8	22.0
Grades 9 – 12	24.0
TOTAL SCORE (out of 90)	80.5
GRADE	A

Chapter 113. Texas Essential Knowledge and Skills for Social Studies. Texas Education Agency. September, 1997 (adopted to be effective September 1, 1998)

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards score particularly well in Fundamentals, Environment and Society, and Skills. Emphasis on map skills is excellent. The vocabulary of geography could be stronger. Concepts regarding Places and Regions and Human Systems do less well. Applications, much of which deals with geography as it relates to the past, fare poorly. Physical Systems score poorly, as is often the case when this area is covered by science. Score: 18.5 of 24

Middle school standards score well. Places and Regions, Human Systems, Environment and Society, and Skills all receive high scores. Physical Systems and Applications receive increased emphasis. Score: 22 of 24

High school standards rate the highest score possible. They are strong in every category. It is a rare state that treats geography in such a sophisticated manner at the high school level. Score: 24 of 24

Score for Comprehensiveness and Rigor: 64.5 of 72

Final Score: 80.5 of 90

UTAH

Summary: Utah receives a C with a score of 66.5. Evaluators reviewed a combination of core curriculum materials: K-6 grades were first adopted in 1986 and revised in 1993. These materials are now being revised again, but drafts are not yet available. Thus, evaluators reviewed the 1993 document. A 1996 revision was evaluated for grades 7-12.

Overall, Utah's geography standards are fairly strong. Although the elementary grade standards scored lower than middle and high school, they nevertheless lay a solid foundation for students, particularly in map and globe skills. Middle grades are stronger, primarily because of geography contained in grade 7 Utah studies and grade 8 U.S. History courses. At the high school level, Utah's standards shine. Standards for a mandatory geography course are comprehensive and rigorous.

STATE REPORT CARD

Utah

GENERAL CHARACTERISTICS	**15.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	13.0
Grades 5 – 8	15.0
Grades 9 – 12	23.0
TOTAL SCORE (out of 90)	**66.5**
GRADE	**C**

Social Studies Core Curriculum, Utah State Board of Education, 1993 and 1996.

Geography in the Curriculum: Geography is regularly taught throughout the social studies curriculum in Utah. A very strong high school course, entitled *Geography for Life*, is mandated for all students.

Standards Presentation: Broadly stated geography standards are integrated into grade-by-grade course outlines. There is at least one geography standard presented in every required course in the Utah social studies curriculum. More specific objectives (benchmarks) are listed beneath each standard. In the newly revised grade 7-12 Core Curriculum, objectives are further illuminated by sample activities. At each grade level, standards and objectives for social studies skills are also presented. These frequently include map and globe skills that reinforce skills expectations found in geography standards. The high school geography course includes seven standards that are closely keyed to national standards.

- **Model:** Utah draws from *Guidelines for Geographic Education* in the elementary and middle grades and from the national standards in high school.
- **Grade Clusters:** Standards are presented grade-by-grade K-12.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills but sometimes include multiple learning objectives that reduce their specificity. (score: 2)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (Score: 3)
- Standards often incorporate benchmarks (objectives). (score: 2)
- Standards documents reviewed offer little guidance to teachers. However, Utah has developed an impressive series of teacher materials for geography teachers. Some of these are available on-line and on specially created CD-ROMs. (score: 2.5)

Score: 15.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards are the weakest. A foundation is laid for students to use maps and globes. Some geographic vocabulary is introduced. Places and Regions receive adequate attention. But Physical Systems, Human Systems, Environment and Society, and Skills and Applications all receive low scores. Score: 13 of 24

Middle school standards improve due to stronger standards and objectives for grades 7 and 8 contained in the 1996 revision. Skills development is solid: students are asked to use geography to evaluate differing energy use and environmental futures for Utah. Score: 15 of 24

High school standards are excellent. The mandatory high school course is comprehensive and rigorous. In addition, students are expected to develop and use their geography knowledge and skills in mandated courses in World Civilizations and US History/Government. Score: 23 of 24

Score for Comprehensiveness and Rigor: 51 of 72

Final Score: 66.5 of 90

VERMONT

Summary: Vermont receives an F with a score of 22. Standards for geography are presented in very broad and overarching terms for early and middle grade clusters. High school standards are the same as those for grades 5-8; thus, high school students do not appear to be expected to progress in geography beyond eighth grade. Vermont's standards are insufficiently comprehensive, specific, or rigorous to provide students an opportunity to master even geography's fundamentals.

Geography in the Curriculum: Geography is integrated throughout the K-12 social studies curriculum.

Standards Presentation: Three geography standards are presented within Vermont's history and social sciences standards. Labeled Geographical Knowledge, Movements and Settlements, and Interrelationships, these are stated in broad and overarching terms. Benchmarks, presented as statements of how student mastery of the standards can be demonstrated, are listed for each standard. These are similarly broad and do not offer a comprehensive treatment of the discipline. No benchmarks are presented for grades 9-12.

- **Model:** No apparent national model has been used.
- ***Grade clusters:*** PreK-4, 5-8, 9-12

STATE REPORT CARD

Vermont

GENERAL CHARACTERISTICS	**9.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	**6.0**
Grades 5 – 8	**7.0**
Grades 9 – 12	**0.0**
TOTAL SCORE (out of 90)	**22.0**
GRADE	**F**

Vermont's Framework of Standards and Learning Opportunities, Vermont Department of Education, 1996

General Characteristics

This category measures six characteristics possessed by high quality standards on a four-point scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are sometimes specific regarding knowledge and skills. (score: 1)
- Standards are often balanced. (score: 2)
- Standards often employ strong verbs. (score: 2)
- Standards sometimes incorporate benchmarks. (score: 1)
- Standards do not offer guidance to teachers. (score: 0)

Score: 9 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards score low in Fundamentals. There is emphasis only on drawing and making maps. Physical Systems and Human Systems each scores one. Places and Regions scores zero. Environment and Society receives most emphasis. Skills and Applications each score zero. Organization is weak. Score: 6 of 24

Middle school standards score no higher than one in each category. Environment and Society scores zero. Score: 7 of 24

High school: No standards are specified. The document states "Evidence PreK-8 applies." Score: 0 of 24

Score for Comprehensiveness and Rigor: 13 of 72

Final Score: 22

VIRGINIA

Summary: Virginia receives a high D with a score of 59. Virginia's standards place geography in a supporting role in its widely praised but history-driven standards. Geography is explicitly addressed throughout, but primarily as a prism to help students better understand the historical events that they are studying rather than as a discipline in its own right. Students who master these standards will know where places are in the world—a step forward for geography learning—but will miss the vocabulary, skills and tools of spatial analysis, the heart of the discipline. Map and location knowledge are presented throughout the standards, but other key content knowledge is only emphasized in an elective 10th grade World Geography course. Treatment of Physical Systems is minimal throughout.

STATE REPORT CARD

Virginia

GENERAL CHARACTERISTICS	15.5
COMPREHENSIVENESS & RIGOR	
Grades K – 4	15.0
Grades 5 – 8	12.0
Grades 9 – 12	16.5
TOTAL SCORE (out of 90)	59.0
GRADE	D

History and Social Science Standards of Learning Board of Education, Commonwealth of Virginia, 1995

Geography in the Curriculum: Geography is a separate strand in grades K-3, emphasized as an important component in grade 4, and receives attention in grades 5-8 as a tool to help students better visualize and interpret historical events. A 10th grade elective World Geography course includes relatively good coverage of knowledge, skills, and applications and draws on *Geography for Life*, the national standards.

Standards Presentation: Standards address geography as a component discipline in a tightly crafted and very specific history/social sciences scope and sequence. In early grades (K-3) the standards include benchmark activities. In later grades, the standards themselves are very specific and detailed, providing a basis for assessment.

- **Model:** History/social science model plus some aspects of *Guidelines for Geographic Education* and *Geography for Life*.
- **Grade clusters:** Standards are presented grade-by-grade.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are often specific regarding knowledge and skills in early grades but less so in middle and upper grades. (score: 2)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards incorporate readily assessable benchmarks or are specific enough in themselves to provide a basis for assessment in early grades. In middle and higher grades, however, geography knowledge and skills are less readily assessable. (score: 2)
- Standards often offer guidance to teachers through their overall specificity. (score: 2.5)

Score: 15.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and Overall Organization (3 points).

Elementary grades score well on geography's fundamentals, drop one point in Places and Regions, Human Systems and Skills, and score low in Physical Systems, Environment and Society, and Applications. The geography that is presented is good, particularly in place location. But emphasis on spatial thinking is not present. Score: 15 of 24

Middle school standards scores drop in comprehensiveness and rigor. Fundamentals receive less emphasis than in earlier grades. Places and Regions are only partially covered as are Physical Systems. Human Systems receive middling scores. Concepts regarding Environment and Society score low. Skills and Applications also fare poorly. Score: 12 of 24

High school standards place little emphasis on Fundamentals. Human Systems receive serious attention followed by concepts regarding Places and Regions and Environment and Society. Standards regarding Skills and Applications receive high scores. Standards for the grade ten elective World Geography course, while good, are not as comprehensive or rigorous as they might be. Score: 16.5 of 24

Score for Comprehensiveness and Rigor: 43.5 of 72

Final Score: 59 of 90

WASHINGTON

Summary: Washington receives an F with a score of 34. The state's geography standards are very broadly stated and lack specificity. They touch on key knowledge and skills, but are neither comprehensive nor rigorous. Evaluators found that, while the standards (*Essential Academic Learning Requirements and Components*) were clear, the associated sample benchmarks (marked "to be determined" in geography) often seemed either insufficiently specific to illuminate the standards or non-geographic in their content. These samples will need additional attention if they are to be useful.

Washington's standards were approved by the state's Commission on Student Learning but must be considered a work in progress. They are available for use by school districts on a voluntary basis but are still open for comment. Actual benchmarks must still be determined as they are currently out of sync with the learning requirements; thus, only sample benchmarks are included in the document.

As benchmarks are being developed for grades 4-5, 7-8, and 10 (because of a Certificate of Mastery for 16 year-olds required by law) the state Board of Education has embarked on a study to determine graduation requirements (grade 12). This study is due for completion in 1999.

Geography in the Curriculum: Geography has traditionally been found in fourth grade studies of Regions and in a middle school course. Some schools teach World Geography in ninth grade, where it often concentrates on the Pacific Rim. Elsewhere, a course on the Pacific Rim may be offered as an alternative to World Geography. Geography may also appear as a concentration within a required twelfth grade Contemporary World Problems course.

Standards Presentation: Geography standards appear as part of social studies, where they come under Goal 2: "Know and apply the core concepts and principles of . . . geography. . . ." This goal must be read in connection with the other three goals that emphasize reading, thinking, and working. Geography has three standards (Learning Requirements), which are "purposefully broad" statements designed to "serve as guideposts to school districts. They are: "1. The student uses maps, charts, and other geographic tools to understand the spatial arrangement of people, places, resources, and environments on Earth's surface; 2. The student understands the complex physical and human characteristics of places and regions; and 3. The student observes and analyzes the interaction between people, the environment, and culture." Each standard is followed by two or three short "components" applicable to all grade levels that "describe broad categories of student behaviors or actions." Benchmarks, still to be determined, will apply to the components and are peculiarly defined as "a point in time which may be used to measure student progress."

- **Model:** Standards use the national standards, *Geography for Life*, as a model.
- **Grade clusters:** Currently designed to be measured at grades 4-5, 7-8, and 10.

STATE REPORT CARD

Washington

GENERAL CHARACTERISTICS	**8.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	9.0
Grades 5 – 8	7.5
Grades 9 – 12	9.0
TOTAL SCORE (out of 90)	**34.0**
GRADE	**F**

Essential Academic Learning Requirements. Washington State Commission on Student Learning. February 26, 1997.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are often clearly written and jargon-free. (score: 2.5)
- Standards are sometimes specific regarding knowledge and skills. (score: 1.5)
- Standards are often balanced. (score: 2)
- Standards sometimes employ strong verbs. (1.5)
- Standards incorporate no benchmarks at this point. (score: 0)
- Standards sometimes offer guidance to teachers. (score: 1)

Score: 8.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards in the areas of Fundamentals and Places and Regions score well enough, but all other areas receive scores reflecting partial or no coverage. Score: 9 of 24

Middle school standards receive low scores throughout all areas regarding content, skills, and applications. Score: 7.5 of 24

High school standards scored low in almost every area. The highest scores, 1.5 out of 3, are reflected in Places and Regions, Environment and Society, and Skills. Score: 9 of 24

Score for Comprehensiveness and Rigor: 25.5 of 72

Final Score: 34 of 90

WEST VIRGINIA

Summary: West Virginia receives a B with a score of 72. The state's standards reflect a thoughtful and specific approach to geography content and skills. They are strong at all grade levels, but best in the middle grades. Skills and Applications are particularly good. Like many states, West Virginia's geography standards are weakest in Physical Systems because their geographical content is included in the state's science standards.

While evaluators did not score West Virginia's science standards, we reviewed them. They are very complete in physical geography, and explicitly direct science teachers in elementary and middle grades to link their standards-based teaching to social studies. Had West Virginia's geography standards included the geographical material we found in the science standards, the state would have scored higher.

In a unique and notable approach, West Virginia's standards highlight the specific knowledge and skills that will be the basis for statewide assessment. We looked at these items with particular care, and find geography well represented.

STATE REPORT CARD

West Virginia

GENERAL CHARACTERISTICS	**16.5**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	16.5
Grades 5 – 8	21.5
Grades 9 – 12	17.5
TOTAL SCORE (out of 90)	**72.0**
GRADE	**B**

Criteria of Excellence: Instructional Goals and Objectives for West Virginia Schools. State Superintendent of Schools/ West Virginia Department of Education, 1997.

Geography in the Curriculum: Geography is a separate strand in the West Virginia social studies curriculum, and is thoroughly incorporated into the K-11 curriculum on a grade-by-grade basis. At seventh grade, the social studies course is titled World Geography. This year-long course, organized around *Guidelines for Geographic Education*, introduces students to selected world regions. Geography is also a prominent strand in mandated high school courses in United States Studies, World Studies, and Twentieth/Twenty-First Centuries Studies. A high school geography elective is offered.

Standards Presentation: West Virginia's *Criteria for Excellence* presents a single standard (Instructional Goal) for geography with very specific and numbered benchmarks (Instructional Objectives) supplied for each grade level. Geography knowledge, skills, and applications incorporated within the grade level instructional objectives are reinforced in a separate Study Skills section for each elementary grade (K-4). The standards present learning objectives for Computers/Technology for each discipline at each grade level. These additional objectives include high expectations for applying technology to geography learning throughout the grades.

- **Model:** West Virginia's standards draw upon *Guidelines for Geographic Education* and *Geography for Life*.
- **Grade clusters:** Standards are presented grade-by-grade, K-11.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are clearly written and jargon-free. (score: 3)
- Standards are specific. (score: 3)
- Standards are balanced. (score: 3)
- Standards employ strong verbs. (score: 3)
- Standards are presented as benchmarks (Instructional Objectives) and assessment items are highlighted. (score: 3)
- Standards offer little guidance for teachers beyond the specificity of the standards themselves. (score: 1.5)

Score: 16.5 of 18

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content*: The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary standards score highest in Fundamentals and Skills, laying a solid base for students to use geography in later grades. There are some odd inclusions: naming the days of the week, for example, is not a geographical concept. Places and Regions scores low. Physical and Human Systems scores relatively well. There is only minor emphasis on Environment and Society and on Applications. West Virginia 1st graders are expected to use graphics software to create charts and graphs. Score: 16.5 of 24

Middle school standards score the highest of the three grade clusters. They are strong in all areas. Skills and Applications are particularly well developed. The grade seven World Geography course is comprehensive and demanding. Eighth graders are expected to use computers to read, interpret, and draw conclusions from graphs, charts, and tables. Score: 21.5 of 24

High school standards are strong in Skills and Applications as students employ geography to understand and interpret past and current events in U.S. and World History courses and in an unusually titled course: Twentieth/Twenty-First Century Studies. Score: 17.5 of 24

Score for Comprehensiveness and Rigor: 55.5 of 72

Final Score: 72 of 90

WISCONSIN

Summary: Wisconsin receives a F with a score of 31. The treatment of geography contained in this draft represents improvement over the discipline's coverage in the state's older *Guide to Curriculum Planning in the Social Studies*. That document presented geography as part of a thematic social studies program.

The new draft presents standards by discipline. But it is a piecemeal effort, lacking coherence. Performance standards are often jumbled and unrelated. There seems to be little logic regarding their arrangement, and their specificity is uneven at best. It would be difficult for students to develop a spatial perspective from these standards or for them to be useful for teachers.

Geography in the Curriculum: The subject is integrated into K-8 social studies, and is emphasized in a grade seven Geography and Global Connections course. Students sometimes take World Geography in grade nine. It is reported that Wisconsin has a strong environmental curriculum where geography may appear as a component.

Standards Presentation: The subject matter of geography is presented under one content standard: "Students in Wisconsin will learn about geography through the study of the relationships among people, places, and environments." This is followed by a short rationale and grade level performance standards.

- ***Model:*** The use of national models is not apparent.
- ***Grade clusters:*** Performance standards are designed for students at the ends of grades 4, 8, and 12.

General Characteristics

This category measures six characteristics possessed by high quality standards using a scale of 0-3.

- Standards are sometimes clearly written and jargon-free (see Summary). (score: 1)
- Standards are sometimes specific regarding knowledge and skills. (score: 1)
- Standards are sometimes balanced but often have a non-discipline-based focus such as "describe how people build and decorate places . . . that reflect cultural values and ideas." (score: 1)
- Standards sometimes employ strong verbs. (score: 1)
- Standards sometimes incorporate benchmarks. Some performance standards could be used as benchmarks, but, for the most part, these are too broad to be measurable, and sometimes they do not make sense. (score: 1)
- Standards do not offer guidance to teachers as there is no material included in this draft that offers any illumination as to the logic of their presentation. At this point, the standards would likely confuse rather than assist local curriculum developers, parents, teachers, and students. (score: 0)

Score: 5 of 18

STATE REPORT CARD

Wisconsin

GENERAL CHARACTERISTICS	**5.0**
COMPREHENSIVENESS & RIGOR	
Grades K – 4	8.0
Grades 5 – 8	9.0
Grades 9 – 12	9.0
TOTAL SCORE (out of 90)	**31.0**
GRADE	**F**

"Wisconsin Model Academic Standards for Social Studies" (draft). Governor's Council on Model Academic Standards, 1997. These standards have not been adopted.

Comprehensiveness and Rigor

This category measures the extent to which standards cover geography as a complete and discrete discipline. Standards are evaluated at each of three grade level clusters: elementary (K-4), middle school (5-8), and high school (9-12).

Within each cluster, standards are measured for their coverage of *Geography Content:* The World in Spatial Terms/ Fundamentals (3 points), Places and Regions (3 points), Physical Systems (3 points), Human Systems (3 points), Environment and Society (3 points); *Geography Skills* (3 points); *Geography Applications* (3 points); and *Overall Organization* (3 points).

Elementary: Of nine performance standards, three focus on Fundamentals such as using atlases, maps and globes, and making mental maps—a good inclusion. Environment and Society and Human Systems receive attention but these standards are too sparse, uneven, and lacking in coherence to score well. Score: 8 of 24

Middle school standards suffer from the same characteristics as those in elementary grades. Of eleven standards presented, Fundamentals and Human Systems receive the most attention. Use of skills is embedded in many of the standards. But, on the whole, they are broad and open-ended rather than specific. Score: 9 of 24

High school: Standards regarding Human Systems receive most attention. There is good inclusion of Skills and Applications but, again, these standards lack coherence and flow. Score: 9 of 24

Score for Comprehensiveness and Rigor: 26

Final Score: 31 of 90

WYOMING

Summary: Wyoming receives an Incomplete. Wyoming is in the early stages of standards development in response to a 1996 legislative mandate. According to state officials, English, mathematics, and high school exit standards are in development. Social studies standards development will begin in late 1997 or early 1998. No geography standards were available for this evaluation.

Score: Incomplete

APPENDIX A. Methodology

Two primary evaluators conducted a comparative analysis of the quality of geography standards among the 50 states and the District of Columbia from June through December, 1997. We sought to determine the status of geography standards in each jurisdiction, developed and applied criteria and a numerical scoring schema to record our evaluations, and prepared a general summary and state-by-state reports.

First we identified an advisory committee of six distinguished geographers to assist in developing criteria and the scoring schema and to provide critical review of our efforts as we proceeded.

Evaluators then assembled the most recent iterations of standards from the states and the District of Columbia. We also gathered information from sources such as the American Federation of Teachers, National Education Goals Panel, Council of State Social Studies Specialists (CS-4), Council of Chief State School Officers, National Geographic Society, and Thomas B. Fordham Foundation to inform our decision-making.

Evaluators developed the criteria and scoring instrument using the following source materials: *Geography for Life*, the national geography standards; Colorado's geography standards; *Mapping out a Standards-Based Framework for GEOGRAPHY*, Fordham Report Vol. 1, No. 1; *State English Standards*, by Sandra Stotsky; *Making Standards Matter 1997*, published by the American Federation of Teachers; *Guidelines for Geographic Education: Elementary and Secondary Schools* published in 1984 by the Joint Committee on Geographic Education and the 1994 *Geography Framework* of the National Assessment of Educational Progress. The advisory committee reviewed our work, helping us refine our criteria and scoring instrument to make it as useful as possible.

Background Information

We first sought necessary background information from each state. The purpose was to gauge each state's progress toward standards creation and adoption and to understand the organization of its geography curriculum. In particular, we sought:

- **Status of Standards.** Identifying specific titles, publishers, and dates of each state's standards was essential to make certain we had obtained the most recent documents. We set a cut-off date of December 12, 1997 to receive standards for evaluation. While the project began in June, we wanted to allow as much time as possible to make certain we were reviewing each state's latest drafts.

  We asked questions regarding adoption: If standards were adopted, when did this occur? Through what means? The legislature? State board of education? Both? Other means? Answers to these questions gave us an idea of how the adoption process worked in each state. We also sought to review standards still in draft to deduce how far along a state was in standards-setting (or if a state intended to develop standards at all).

  We wanted to analyze where geography was placed in the curriculum in relation to when geography learning would be evaluated. If, for example, a state required students to master some geographic learning upon exiting grade 8, we looked to see if geography had been taught in the classroom leading up to that requirement.

  This question was not easily answered. The more that curricular decisions are left up to local districts and individual schools, we found, the less state officials know about geography's exact place in a PreK-12 scope and sequence. Thus, we were frequently unable to ascertain curriculum specifics.
- **Standards Presentation:** We decided to explain how each state's standards were presented so that readers might observe the multitudinous choices involved in standards-setting. Part of this examination included identifying the models (if any) upon which states may have based their standards.

  Would states look to discipline-specific models such as the 1994 National Geography Standards, *Geography for Life*, a federally funded national consensus project that was two years and more than $1 million in the making? Or the *Geography Framework* developed for the 1994 National Assessment for Educational Progress, a short but pithy explanation of what students should know and be able to do in geography as they exit grades four, eight, and twelve? Or perhaps the dated (1984) but widely distributed document, *Guidelines for Geographic Education*, a teacher-friendly booklet that explains geography using Five Themes?

  Or would these discipline-based materials be ignored in favor of a social studies model such as *Curriculum Standards for Social Studies: Expectations of Excellence*, published by the National Council for the Social Studies which calls the study of geography "Peoples, Places and Environments"? Or a history/social science model that uses geography in the study of history but often ignores its spatial perspective? Or something else? This information was essential to our analysis because geography is an emerging discipline in contemporary primary/secondary education in the United States.
- **Grades or grade clusters.** It was important to determine how states would monitor the learning progress of their students. Would they ask students to prove their mastery annually? Or three times in their K-12 careers? Or less frequently? Evaluators believe that the more frequently students are asked to prove mastery, the more likely they will be to develop a solid base of knowledge and skills. We believe standards should be presented grade-by-grade or in small clusters of grades to be useful to students, educators, and parents.

Criteria and Scoring

Once background information questions were agreed upon, we established the criteria by which state standards would be appraised. These we divided into two broad categories: "general characteristics" and "comprehensiveness and rigor." We settled on six criteria under the former category and eight under the latter. But since we divided our appraisal of standards' actual content into three grade clusters, the "comprehensiveness and rigor" criteria were applied three times per state, leading to 24 separate scores under that category. Twenty-four scores for comprehensiveness and rigor, plus six for "general characteristics," meant a total of 30 per state. Since 3 was the highest score possible on any one of these, 90 became the maximum possible score that a state could attain. NB: The "criteria and scoring instrument" that we employed is reproduced at the conclusion of this appendix.

General Characteristics

- **Standards should be clearly written and jargon-free.** This item reflects evaluators' view that public acceptance of stan-

dards as well as their utility to curriculum developers, classroom teachers, parents, and students hinge upon their being clearly written and easily accessible.

- **Standards should be specific regarding knowledge and skills** that students must learn and use. This item reflects evaluators' view that standards must provide specific and understandable information as to what students must know and be able to do. Nebulous standards put students and teachers at a disadvantage.
- **Standards should be balanced** such that they do not attempt to sway students towards any particular political, moral, or social point of view. This item reflects evaluators' view that standards should be free of *a priori* value judgments.
- **Standards should employ strong verbs** such as analyze, compare, demonstrate, describe, determine, evaluate, explain, identify, illustrate, locate, make, trace, utilize, etc. This item reflects evaluators' view that standards should expect students to perform specific actions that demonstrate their learning and that are amenable to assessment.
- **Standards should incorporate benchmarks** — i.e., specific activities by which students may demonstrate measurable mastery of a standard. This item reflects evaluators' view that standards must able to serve as a basis for state-wide assessment.
- **Standards should offer guidance to teachers** in developing curriculum, activities, instructional material, and classroom methods. This emphasis reflects evaluators' view that standards should assist educators in their efforts to teach the knowledge and skills necessary to enable students to gain mastery of the standards.

This last item did not prove as measurable as we would have liked. Some states include substantial teacher materials within their standards, but others do not. Many states have developed supplemental print and other materials for teachers that are separate from their standards. We were therefore unable to evaluate this information except insofar as it occurs in the standards documents themselves.

Scoring Rubric for General Characteristics

We developed a four-point scale to appraise these six general characteristics within each state's standards. A scale of 0-3 measured the frequency of occurrence of each desired characteristic:

0 = the standards *virtually never* embody the desired characteristic
1 = the standards *sometimes* embody the desired characteristic
2 = the standards *often* embody the desired characteristic
3 = the standards *nearly always* embody the desired characteristic
(18 = maximum score)

Comprehensiveness and Rigor of Geography Content, Skills and Applications

These eight criteria were developed using *Geography For Life*, which contains a comprehensive description of the knowledge, skills, and applications embraced by the discipline, and the Colorado state geography standards which translate much of the language from the national document into readable English. The advisory committee reviewed and improved upon our initial efforts. The first five criteria all pertain to content.

- **The World in Spatial Terms (Fundamentals of Geography)** covers characteristics and uses of maps (including mental maps) and other geographic representations, tools, and technologies; knowledge of Earth to locate people, places, and environments; and knowledge of geographic vocabulary and concepts essential to analysis of spatial organization of people, places, and environments on Earth's surface.
- **Places and Regions** covers the physical and human characteristics of places; the fact that people create regions to interpret Earth's complexity and the way culture and experience influence people's perceptions of places and regions.
- **Physical Systems** covers the physical processes that shape the patterns of Earth's surface and the characteristics and distribution of ecosystems on Earth's surface.
- **Human Systems** covers the characteristics, distribution, and migration of human populations on Earth's surface; the characteristics, distribution, and complexity of Earth's cultures; the patterns and networks of economic interdependence; the processes, patterns, and functions of human settlement, and the way forces of cooperation and conflict among people influence the division and control of Earth's surface.
- **Environment and Society** covers how human actions modify the physical environment and how physical systems affect human systems and the changes that occur in the meaning, use, distribution and importance of resources.
- **Skills:** One criterion regarding skills was developed using definitions included in *Guidelines for Geographic Education* and reprinted in *Geography for Life*. Standards at all grade clusters were examined to see if they specified the skills of geographic analysis and the higher-order use of basic geography knowledge. These skills and uses include asking and answering geographic questions; acquiring, organizing, analyzing, presenting geographic information, and developing and testing geographic generalizations.
- **Applications:** One criterion regarding Applications was developed using *Guidelines for Geographic Education* and *Geography for Life*. Applications are defined as applying geographic perspectives to interpret the past and present and to plan for the future.
- **Organization:** Finally, we sought to determine whether standards within particular grade clusters were well-organized and reflected a coherent progression of information. (In retrospect, it might have been wiser to score this point within General Characteristics instead of Comprehensiveness and Rigor.)

Grade Clusters

We decided to evaluate Comprehensiveness and Rigor by grade clusters PreK-4 (elementary), 5-8 (middle school) and 9-12 (high school). These clusters were deemed most useful for they relate to the National Goals for Education, geography's national standards, and the grade levels used by the National Assessment of Educational Progress.

When evaluating content, skills, and applications within the three grade clusters, evaluators would search for material in higher or lower level clusters if a state's grade clusters did not match our own. If, for example, a state chose to cluster its standards grades PreK-6, we would search both our elementary and middle school indicators for scoring points and assign them accordingly.

Scoring Rubric for Comprehensiveness and Rigor

These eight criteria were scored on a scale of 0-3 that gives a general estimate of the quantity and quality of geography content, skills, applications, and organization.

0 = Essential material is *not* covered
1 = Essential material is *partially* covered
2 = Essential material is *mostly* covered
3 = Essential material is *very well* covered
(24 = maximum score for each grade cluster; 72 = maximum score for comprehensiveness and rigor.)

Grades and Totals

Scores were tallied for all criteria and compared against a maximum possible total score of 90. States scoring 80 to 90 received A's. Scores of 70-79 received B's. Scores of 60-69 received C's. Scores of 50-59 received D's. Lower scores received failing grades. States without standards or with only preliminary drafts received "incompletes."

Once the criteria and scoring rubrics were completed, the two primary evaluators began the state-by-state analyses. Both evaluators read the standards and made their own independent assessments using the criteria and scoring instrument. Then the evaluators would meet and discuss their decisions and record their independent scores. Combining and then dividing our two scores would, from time to time, cause reported scores to read decimally (2.5 for example). When the two evaluators found difficulty in evaluating a particular state, we would send its standards to a member of the advisory committee for a third opinion, combine the three scores, and divide by three to get a final score. Thus Delaware, for example, has scores reflecting three scorers (such as 1.3 and 1.6).

Once all states were evaluated and reports drafted, they were forwarded to advisory committee members. They reviewed our work using appropriate sets of state standards and our reports. Once the reviews were returned, advice and comment were entered into the next iterations of state-by-state evaluations.

Upon completion of a first draft, copies were sent to the advisory committee for final comment. Comments were entered into the final draft, which was sent to the Thomas B. Fordham Foundation for copy-editing, layout, and publication.

APPENDIX B. Geography Criteria & Scoring Instrument

State _____

Date _____

I. Background Information

1. Title of Standards
   A. Status of Standards: have the standards been formally adopted? Yes ___ No ___
      a. If "Yes," how did the adoption occur? Legislative approval? State Board of Education vote? Other?
      b. Date of adoption?
      c. If not adopted, what is the current status of standards?
      d. Describe geography's place in the state's curriculum.
         * Note the grades in which geography is offered.
         * Indicate if/where it is *required* as a separate subject or as a content strand within the social studies curriculum.
         * Indicate if/where it is an *elective*.

2. **Standards relate in their organizational structure and substance to the following national documents:**
   A. *National Geography Standards 1994: Geography for Life*
   B. *Geography Framework for the 1994 National Assessment of Educational Progress*
   C. *Guidelines for Geographic Education* (The Five Themes)
   D. *Curriculum Standards for Social Studies: Expectations of Excellence*
   E. History/Social Science Model
   F. Other organizing framework that covers the breadth and depth of a quality geography education.

3. **Standards are presented at every grade level or for specified clusters of grades. PreK _; K_; 1_; 2_; 3_; 4_; 5_; 6_; 7_; 8_; 9_; 10_; 11_; 12_.**

II. General Characteristics of the State's Standards

(Scoring of Category II—Items 4-9)

0 = the standards *virtually never* embody the characteristic

1 = the standards *sometimes* embody the characteristic

2 = the standards *often* embody the characteristic

3 = the standards *nearly always* embody the characteristic

4. **Standards are clearly written and jargon-free. Score: 0 1 2 3**
5. **Standards are specific. Score: 0 1 2 3**
6. **Standards are balanced. Score: 0 1 2 3**
7. **Standards employ strong verbs. Score: 0 1 2 3**
8. **Standards incorporate benchmarks. Score: 0 1 2 3**
9. **Standards offer guidance to teachers. Score: 0 1 2 3**

Score on Category II: ___ (Maximum: 18)

III. Comprehensiveness and Rigor of Geography Content, Skills, and Applications

(Scored by grade cluster: elementary (K-4); middle school (5-8); and high school (9-12).)

Scoring of Category III—Items 10-12

Scoring Area A: Comprehensiveness and rigor of coverage of content knowledge

0 = Essential material is not covered

1 = Essential material is *partially* covered

2 = Essential material is *mostly* covered

3 = Essential material is very *well*-covered

Scoring Area B: Higher order uses of knowledge, skills, and perspectives (See Scoring Area A)

Scoring Area C: Applications (See Scoring Area A)

Scoring Area D: Overall Organization (See Scoring Area A)

10. Elementary (K-4) Standards
    A. Specify Content Knowledge—what students should know about:
       (1) The World In Spatial Terms: The Fundamentals of Geography — characteristics and uses of maps (including mental maps) and other geographic representations, tools, and technologies; knowledge of Earth to locate people, places, and environments; knowledge of geographic vocabulary and concepts essential to analysis of spatial organization of people, places, and environments on Earth's surface:
       - identifying the elements, characteristics, and purposes of maps (including mental maps), globes, and other geographic tools (e.g., title, legend, cardinal directions)
       - understanding maps and globes as representations of places and phenomena
       - reading and interpreting information from maps, globes, graphs, photographs, and other sources
       - drawing and making maps (including from memory), globes, and models displaying geographic information (e.g., keys, legends, significant features such as oceans and continents)
       - locating places within the neighborhood, the local community, and nearby communities; knowing the location of the state in relation to the United States and the world
       - identifying major geographic features in the state, the United States and on Earth (e.g., continents, oceans, major rivers, the state capital city and other major cities in the state)
       - identifying specific locations on a map using grids
       - knowing and using basic spatial vocabulary e.g., location, distance, direction, scale, movement, area, region, point, line, area, volume)

- understanding that places and phenomena are distributed across Earth's surface
- understanding and describing connections among places

Score: 0 1 2 3

(2) Places and Regions—the physical and human characteristics of places; the fact that people create regions to interpret Earth's complexity; how culture and experience influence people's perceptions of places and regions:
- physical characteristics of places (e.g., landforms, bodies of water soil, vegetation, and weather and climate)
- human characteristics of places (e.g., population distributions, settlement patterns, languages, ethnicity, nationality, and religious beliefs)
- how physical and human processes together shape places
- concept of region as an area of Earth's surface with unifying geographic characteristics
- similarities and differences among regions
- ways in which regions change
- the fact that different people perceive places and regions differently
- how to describe the student's own community and region from different perspectives

Score: 0 1 2 3

(3) Physical Systems—the physical processes that shape the patterns of Earth's surface; the characteristics and distribution of ecosystems on Earth's surface:
- the components of Earth's physical systems and the features that belong in each category (atmosphere, lithosphere, biosphere, hydrosphere)
- the physical processes that affect Earth's features (e.g., weather, tectonic forces, erosion)
- the Earth-Sun relationship and how it affects conditions on Earth
- the components of ecosystems
- the nature and distribution of ecosystems
- how humans affect ecosystems

Score: 0 1 2 3

(4) Human Systems—the characteristics, distribution, and migration of human populations; the characteristics, distribution, and complexity of Earth's cultures; the patterns and networks of economic interdependence; the processes, patterns, and functions of human settlement; how the forces of cooperation and conflict among people influence the division and control of Earth's surface:
- distribution of population
- characteristics of populations at different scales (local to global)
- causes and effects of human migration
- how the characteristics of culture affect the ways in which people live
- how patterns of culture vary across Earth's surface
- how cultures change
- geographic factors that influence the location and distribution of economic activities
- transportation and communication networks used in daily life
- types and patterns of settlement
- factors that affect where people settle
- spatial characteristics of cities (e.g., shopping, business, parks)
- how people divide Earth's surface into territorial units
- types of territorial units (e.g., cities, counties, school districts, states, countries)

Score: 0 1 2 3

(5) Environment and Society—how human actions modify the physical environment; how physical systems affect human systems; the changes that occur in the meaning, use, distribution, and importance of resources:
- how people depend on the physical environment
- how people modify the physical environment
- how the physical environment can both accommodate and be endangered by human activities
- how variations within the physical environment affect human adaptation
- ways in which the physical environment provides opportunities for people
- ways in which the physical environment, including natural hazards, constrain human activities
- characteristics of renewable, nonrenewable, and flow resources
- role of resources in daily life
- distribution of resources

Score: 0 1 2 3

B. Specify Developing the Skills of Geographic Analysis (Higher order use of basic Geography knowledge)—asking and answering geographic questions; acquiring, organizing, analyzing, and presenting geographic information; developing an... testing geographic generalizations:
- ask and answer geographic questions (e.g., Where is it? Why is it there? What is it like there? How did it get there? How is its location related to the locations of other people, places, and environments?)
- locate, gather, and process information from a variety of sources, including maps
- observe human and physical characteristics of places in the classroom and in the field
- prepare maps (including from memory) to present geographic information
- construct graphs, tables, and diagrams to present geographic information
- make oral and written presentations accompanied by maps to present geographic information
- use tables, charts, and graphs to observe and analyze trends and relationships
- use maps to observe, analyze, and interpret geographic information
- draw conclusions and make generalizations from geographic information and inquiry

- apply generalizations to solve problems and make decisions

Score: 0 1 2 3

C. Specify Applications of Geography—applying geographic perspectives to interpret the past, the present, and to plan for the future:
- describing how places and environments change over time
- describing how people's perceptions of places change over time
- describing how spatial and ecological relationships influence people and events over time
- identifying and describing issues in the community using geography's spatial perspective
- describing how spatial and ecological relationships affect social and environmental problems and people's responses to them
- recommending locations for things and activities at appropriate scale

Score: 0 1 2 3

D. Overall, the K-4 standards are well organized, reflecting a coherent progression of information. Score: 0 1 2 3

Total Score Item 10 ___ (Maximum: 24)

11. Middle School (5–8) Standards

A. Specify Content Knowledge—what students should know about:

(1) The World in Spatial Terms: The Fundamentals of Geography—(See 10 A (1))
- knowing and describing the characteristics and purposes of and differences between maps (including various map projections), globes, aerial photographs, geographic models, and satellite images and their advantages and disadvantages as geographic tools
- making and using different kinds of maps (including from memory), globes, charts, and data bases
- knowing and employing fundamental geographic vocabulary such as latitude, longitude, interdependence, accessibility, and connections
- identifying the location of places using latitude and longitude
- identifying and locating the 50 states
- identifying and locating physical and human features in their own and nearby communities, the United States, and in regions of the world
- drawing an accurate map from memory to answer questions about the location of physical and human features
- analyzing ways that people's mental maps reflect their perceptions of and attitudes towards places
- analyzing the factors that affect the location of human activities; explaining land use patterns in urban, suburban, and rural areas; describing patterns and processes of migration and diffusion

Score: 0 1 2 3

(2) Places and Regions: (see 10 A (2))
- human and physical characteristics of places
- how physical processes shape places
- how different human groups alter places in distinctive ways
- role of technology in shaping the characteristics of places
- elements and types of regions
- describing a region by identifying its characteristics
- how and why regions change
- understanding and describing connections among regions
- influences and effects of regional labels and images
- how personal characteristics affect perception of places and regions
- how culture and technology affect perception of places and regions
- how places and regions serve as cultural symbols

Score: 0 1 2 3

(3) Physical Systems: (See 10 A (3))
- how physical processes shape patterns in the physical environment
- how physical processes influence the formation and distribution of resources
- the consequences of specific physical processes operating on Earth's surface (e.g., effect of a hurricane on a coastal zone)
- the Earth-Sun relationship in terms of its affect on day and night, time zones, seasons, and climatic variations
- how the Earth-Sun relationship affects physical processes and patterns on Earth
- local and global patterns of ecosystems
- how ecosystems work
- how physical processes produce changes in ecosystems
- how human activities influence changes in ecosystems

Score: 0 1 2 3

(4) Human Systems (See 10 A (4)
- demographic structure of one or more populations
- reasons for variations in population distribution
- types and historical patterns of human migration
- effects of migration on the characteristics of places
- how to read elements of the landscape as a mirror of culture
- the processes of cultural diffusion
- the factors that influence the location and distribution of economic activities
- how and why countries trade goods and services
- how changes in technology, transportation and communication affect the location of economic activities
- types and patterns of settlement in different regions of the world
- causes and consequences of urbanization
- internal spatial structure of urban settlements

- how cooperation and conflict among people contribute to political, economic, and social divisions of Earth's surface
- forces and processes that unite people across Earth's surface

Score: 0 1 2 3

(5) Environment and Society (See 10 A (5))
- consequences of human modification of the physical environment
- how human modifications of the physical environment in one place often lead to changes in other places
- role of technology in the human modification of the physical environment
- human responses to variations in physical systems
- how the characteristics of different physical environments provide opportunities for, or place constraints on, human activities
- how humans are affected by and respond to natural hazards
- worldwide distribution and use of resources
- how technology affects the definitions of, access to, and use of resources
- the fundamental role of energy resources in society

Score: 0 1 2 3

B. Specify Developing the Skills of Geographic Analysis (See 10 B)
- identify and define geographic issues and problems from accounts of current events
- ask appropriate geographic questions and plan and execute a geographic inquiry to answer them
- use a variety of research skills to locate and collect descriptive and statistical data
- observe human and physical characteristics of places on the basis of field work
- prepare various forms of maps, graphs, diagrams, tables, and charts to organize and display geographic information
- develop and present systematic combinations of geographic information
- interpret and analyze information obtained from a variety of sources including maps, aerial photographs, remotely sensed images, graphs, charts, diagrams, tables, texts, photographs, documents, and interviews
- use statistics and other quantitative skills to evaluate geographic information
- develop generalizations from geographic information and inquiry and assess their validity

Score: 0 1 2 3

C. Specify Applications of Geography (See 10 C)
- ways the spatial organization of societies change over time
- how geographic factors have influenced events and conditions in the past
- how differing perceptions of places, people, and resources have affected events and conditions in the past
- how the interaction of physical and human systems may shape present and future conditions on Earth
- how varying geographic points of view influence plans for change
- explaining a contemporary issue using geographic knowledge, skills, and perspectives

Score: 0 1 2 3

D. Organization (See 10 D)

Score: 0 1 2 3

Total Score Item 11 ___ (Maximum: 24)

12. High School (9-12) Standards

A. Specify Content Knowledge—what students should know about:

(1) The World in Spatial Terms: The Fundamentals of Geography—(See 10 A (1))
- evaluating and selecting appropriate maps and other geographic representations to depict, analyze, and explain geographic issues and problems
- drawing complex and accurate maps from memory to answer questions about the location of human and physical features
- analyzing maps of the same place that people make from memory to determine similarities and differences
- identifying physical and human features in the U.S. and regions of the world at a high level of detail and accuracy
- knowing and applying vocabulary and concepts of spatial interaction, including analyzing patterns of distribution and arrangements of settlements
- analyzing patterns and processes of diffusion

Score: 0 1 2 3

(2) Places and Regions (See 10 A (2))
- analyzing the human and physical characteristics that give meaning and significance of place
- describing the changing physical and human characteristics of places
- how relationships between humans and physical environment lead to the formation of places and to a sense of personal and community identity
- the types of regions (e.g., formal, functional, perceptual)
- how multiple criteria can be used to define a region
- how regions change
- how to use regions as a basis for analyzing geographic issues
- how and why places and regions serve as symbols for individuals and society
- why different groups of people within a society view
- how changing perceptions of places and regions reflect cultural change

Score: 0 1 2 3

(3) Physical Systems (See 10 A (3))

- how physical processes affect different regions of the world
- the relationship between physical processes and resulting landforms
- how Earth's physical processes are dynamic and interactive
- factors that affect the distribution and characteristics of ecosystem
- the biodiversity and productivity of ecosystems
- the importance of ecosystems in understanding the environment

Score: 0 1 2 3

(4) Human Systems (See 10 A (4))

- trends in world population numbers and patterns
- physical and cultural impact of human migration
- how cultures shape the character of a region
- processes of cultural diffusion and convergence
- effect of technology on the development and change of cultures
- characteristics and spatial distribution of economic systems
- how places of various sizes function as centers of economic activity
- factors influencing economic interdependence of the world's countries
- functions, sizes, and spatial arrangements of urban areas
- differing characteristics of settlement in developing and developed countries
- processes that change the internal structure of urban areas
- evolving forms of present-day urban areas
- why and how cooperation and conflict are involved in shaping the distribution of social, political, and economic spaces on Earth at different scales
- how differing points of view and self-interest play a role in conflict over territory and resources

Score: 0 1 2 3

(5) Environment and Society (See 10 A (5))

- the role of technology in the capacity of the physical environment to accommodate human modification
- the significance of the global impact of human modification of the physical environment
- how to apply appropriate models and information to understand environmental problems
- how changes in the physical environment can diminish its capacity to support human activity
- how humans perceive and react to natural hazards
- how the spatial distribution of resources affects patterns of human settlement
- how resource development and use change over time
- geographic results of policies and programs for resource use and management

Score: 0 1 2 3

B. Specify Developing the Skills of Geographic Analysis (See 10 B)

- planning and organizing a geographic research project
- systematically locate and gather geographic information from a variety of primary and secondary sources
- systematically organize geographic information
- create and use a variety of kinds of maps, graphs, diagrams, charts, and tables to present geographic information in an integrated presentation
- use quantitative skills to interpret geographic information
- formulate valid generalizations from geographic information and inquiry
- apply generalizations to evaluate and solve problems based on reasoned decision-making.

Score: 0 1 2 3

C. Specify Applications of Geography (See 10 C)

- how processes of spatial change affect events and conditions
- how changing perceptions of places and environments affect the spatial behavior of people
- the role that geographic space has played in affecting events in History
- how differing points of view influence the development of policies designed to use and manage Earth's resources
- contemporary issues in the context of spatial and environmental perspectives

Score: 0 1 2 3

D. Overall Organization. (See 10 D)

Score: 0 1 2 3

Total Score Item 12___ (Maximum: 24)

Total Score Category III ___ (Maximum: 72)

Final Score ___ (Maximum = 90)

APPENDIX C. Bibliography

California State Board of Education (1987). *History-Social Science Framework for California Public Schools: Kindergarten Through Grade Twelve*. Sacramento, California: California State Board of Education.

Gallup Organization, Inc. (1988). *Geography: An International Survey*. Princeton, New Jersey: Gallup Organization.

Gandal, Matthew (1997). *Making Standards Matter 1997: An Annual Fifty-State Report on Efforts to Raise Academic Standards*. Washington, D.C.: American Federation of Teachers.

Geographic Education National Implementation Project (1987). *K-6 Geography: Themes, Key Ideas, and Learning Opportunities*. Skokie, Illinois: Rand McNally.

Geographic Education National Implementation Project (1989). *7-12 Geography: Themes, Key Ideas, and Learning Opportunities*. Skokie, Illinois: Rand McNally.

Geography Education Division, et. al. (1991). *5 Year Report*. Washington, D.C.: National Geographic Society.

Geography Education Standards Project (1994). *Geography For Life: National Geography Standards*. Washington, D.C.: American Geographical Society, Association of American Geographers, National Council for Geographic Education, National Geographic Society.

Kenney, Marianne, et. al. (1995). *Mapping Out a Standards-Based Framework for Geography: The Colorado Geography Curriculum Framework*. Denver, Colorado: Colorado Department of Education.

NAEP Geography Consensus Project (1994). *Geography Framework for the 1994 National Assessment of Educational Progress*. Washington, D.C.: National Assessment Governing Board, U.S. Department of Education.

National Education Goals Panel (1995). *The National Education Goals Report: Building a Nation of Learners*. Washington, D.C.: National Education Goals Panel.

Natoli, Salvatore J., et al (1984). *Guidelines for Geographic Education: Elementary and Secondary Schools*. Washington, D.C.: Joint Committee on Geographic Education of the National Council for Geographic Education and the Association of American Geographers.

Salter, Christopher L. (1990). *Missing the Magic Carpet: The Real Significance of Geographic Ignorance*. Princeton, NJ: Educational Testing Service.

Stotsky, Sandra (1997). *State English Standards: An Appraisal of English Language Arts/Reading Standards in 28 States, Complete Edition Including State Reports*. Washington, D.C.: Thomas B. Fordham Foundation.

Task Force for Curriculum Standards (1994). *Curriculum Standards for the Social Studies: Expectations of Excellence*. Washington, D.C.: National Council for the Social Studies.

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